The new new product scouts

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BUSINESS WEEK

A McGRAW-HILL PUBLICATION FIFTY CENTS SEPT. 26, 1959

At Ford, Robert S. McNamara leads a new generation of management. (Management)

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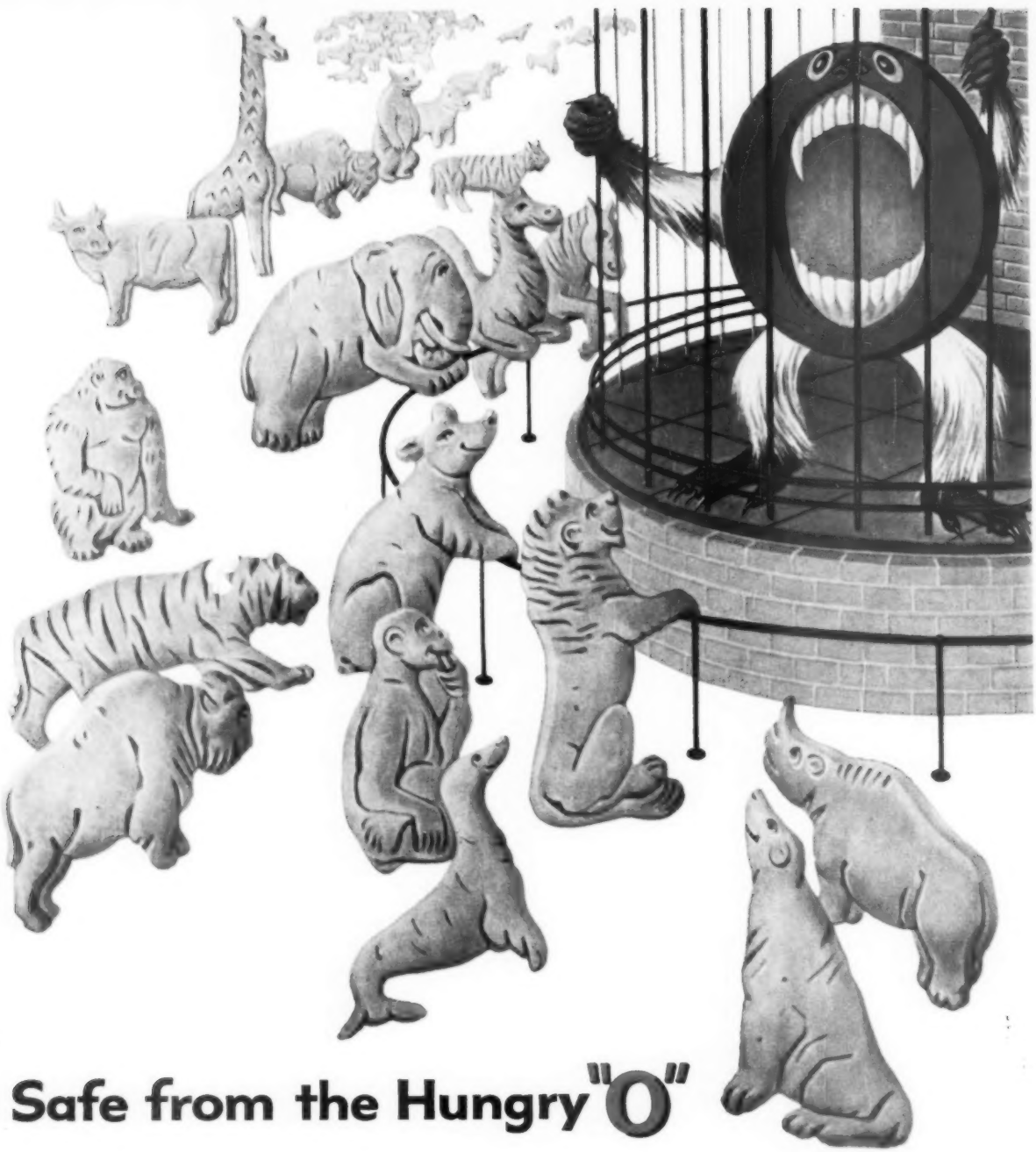

Safe from the Hungry "O"

Every four-footed member of the Animal Cracker Protective League knows the deadliest enemy of them all. But now he can breathe easily: the roaring "O" ("O" for oxygen) has been trapped by Ionol® CP antioxidant.

Secret of Ionol CP is the way it catches—and holds—oxygen that changes the flavor and aroma of nutritious, fat-containing foods. Used in packaging material for baked goods, this remarkable antioxidant stops spoilage right at the wrapper . . . safeguards fresh-made taste.

With Ionol CP antioxidant for packages, Shell Chemical helps keep foods fresh and tasty for a nation of animal cracker fans!

SHELL

Shell Chemical Corporation

Chemical Partner of Industry and Agriculture

NEW YORK

in BUSINESS this WEEK *September 26, 1959*

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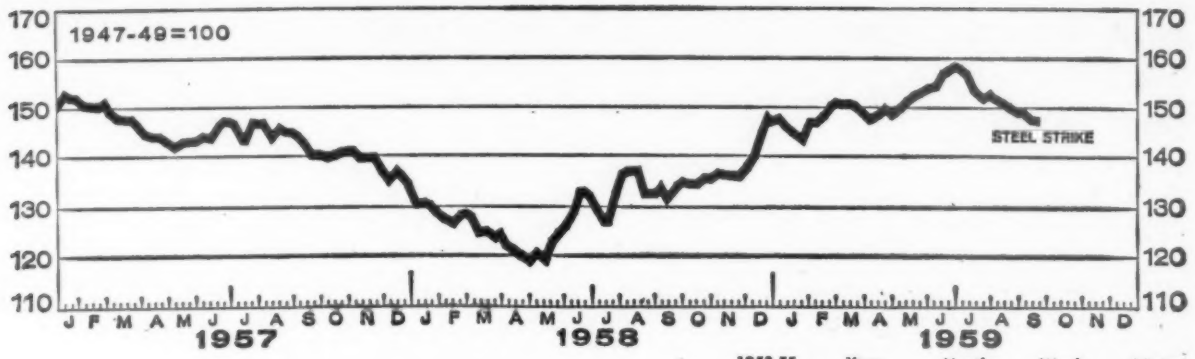
FIGURES of the WEEK



	1953-55 Average	Year Ago	Month Ago	Week Ago	§ Latest Week
BUSINESS WEEK INDEX (chart)	133.3	134.7	150.9	148.1r	148.0*
PRODUCTION					
Steel ingot (thous. of tons)	2,032	1,816	332	356 r	359
Automobiles	125,553	37,150	31,848	24,364 r	61,734
Engineering const. awards (Eng. News-Rec. 4-wk. daily av. in thous.)	$52,412	$58,614	$62,291	$61,757	$66,873
Electric power (millions of kilowatt-hours)	10,819	12,240	14,003	13,109	12,779
Crude oil and condensate (daily av., thous. of bbls.)	6,536	7,087	6,817	6,813	6,823
Bituminous coal (daily av., thous. of tons)	1,455	1,391	1,204	1,223 r	1,275
Paperboard (tons)	247,488	311,174	320,743	250,491	327,749
TRADE					
Carloadings: mfrs., miscellaneous and l.c.l. (daily av., thous. of cars)	70	63	55	56	54
Carloadings: all others (daily av., thous. of cars)	47	48	35	35	34
Department store sales index (1947-49 = 100, not seasonally adjusted)	121	145	132	148	132
Business failures (Dun & Bradstreet, number)	198	262	263	222	264
PRICES					
Industrial raw materials, daily index (BLS, 1947-49 = 100)	89.2	86.0	92.5	94.2	93.8
Foodstuffs, daily index (BLS, 1947-49 = 100)	90.5	85.8	78.7	77.4	76.2
Print cloth (spot and nearby, yd.)	19.8¢	17.7¢	19.5¢	10.5¢	19.5¢
Finished steel, index (BLS, 1947-49 = 100)	143.9	186.6	186.7	186.7	186.7
Scrap steel composite (Iron Age, ton)	$36.10	$43.17	$40.17	$41.50	$42.50
Copper (electrolytic, delivered price, E & MJ, lb.)	32.394¢	26.485¢	30.430¢	31.350¢	31.410¢
Wheat (No. 2, hard and dark hard winter, Kansas City, bu.)	$2.34	$1.95	$2.00	$2.06	$2.00
Cotton, daily price (middling, 1 in., 14 designated markets, lb.)	34.57¢	34.67¢	31.82¢	31.76¢	31.77¢
Wool tops (Boston, lb.)	$1.96	$1.68	$1.97	$1.92	$1.92
FINANCE					
500 stocks composite, price index (S&P's, 1941-43 = 100)	31.64	49.40	59.03	56.96	55.75
Medium grade corporate bond yield (Baa issues, Moody's)	3.59%	4.88%	5.11%	5.16%	5.21%
Prime commercial paper, 4 to 6 months, N. Y. City (prevailing rate)	2–1⅛%	2⅞%	4%	4 ½%	4¾%
BANKING (Millions of Dollars)					
Demand deposits adjusted, reporting member banks	‡	60,939	60,090	60,624	61,129
Total loans and investments, reporting member banks	‡	‡	104,025	103,542	104,137
Commercial, industrial, and agricultural loans, reporting member banks	‡	‡	29,839	29,923	30,270
U. S. gov't guaranteed obligations held, reporting member banks	‡	34,579	29,448	28,944	28,890
Total federal reserve credit outstanding	26,424	26,644	28,562	28,656	28,834

MONTHLY FIGURES OF THE WEEK		1953-55 Average	Year Ago	Month Ago	Latest Month
Cost of living (U.S. Dept. of Labor BLS, 1947-49=100)	**August**	114.6	123.7	124.9	124.8
McGraw-Hill Indexes of New Orders (1950=100)					
New Orders for machinery, except electrical (seasonally adjusted)	**August**	104	149	193	161
Construction & mining machinery	**August**	111	147	218	178
Engines & turbines	**August**	106	143	184	165
Pumps & compressors	**August**	120	171	192	204
Metalworking machinery	**August**	125	89	190	150
Other industrial machinery	**August**	95	145	152	136
Office equipment	**August**	109	124	178	146
New contracts for industrial building	**August**	128	73	141	165

* *Preliminary, week ended September 19, 1959.*
r *Revised.*

‡ *Not available. Series revised.*
§ *Date for "Latest Week' on each series on request.*

THE PICTURES—Cover—Gene Pyle; 26—Chun King Co.; 28—(top) Grant Compton, (bot.) Herb Kratovil; 29—(top lt. & bot.) Grant Compton, (rt.) Herb Kratovil; 30—Joern Gerdts; 32, 33—Marshall Lockman; 58, 59—McGraw-Hill World News; 74—Ford Motor Co.; 75—(top lt.) W.W., (sec. row, bot. row sec., & bot. row rt.) Ford Motor Co., (bot. row lt.) Moore-Grear Inc., (bot. row third) Ernest Reshovsky; 90—General Electric Research Laboratories; 96—U.P.I.; 102—Sylvania Electric Products Corp.; 109, 111, 112—Burson-Marsteller Inc.; 118, 119, 120, 126, 128—Helmer Lund Hansen; 147—Aluminum Co. of America; 157—Grant Compton; 170, 171—Ed Nano; 177—Ed Malsberg.

B.F.Goodrich

River of waste acid flows under river of water

B.F.Goodrich improvements in rubber brought extra savings

THE man in the diving suit is on his way to the bottom of the river to fasten another river in place. A paper mill across the way has to get rid of big quantities of hot waste acid. Just dump it in the river? That would pollute the water, kill fish.

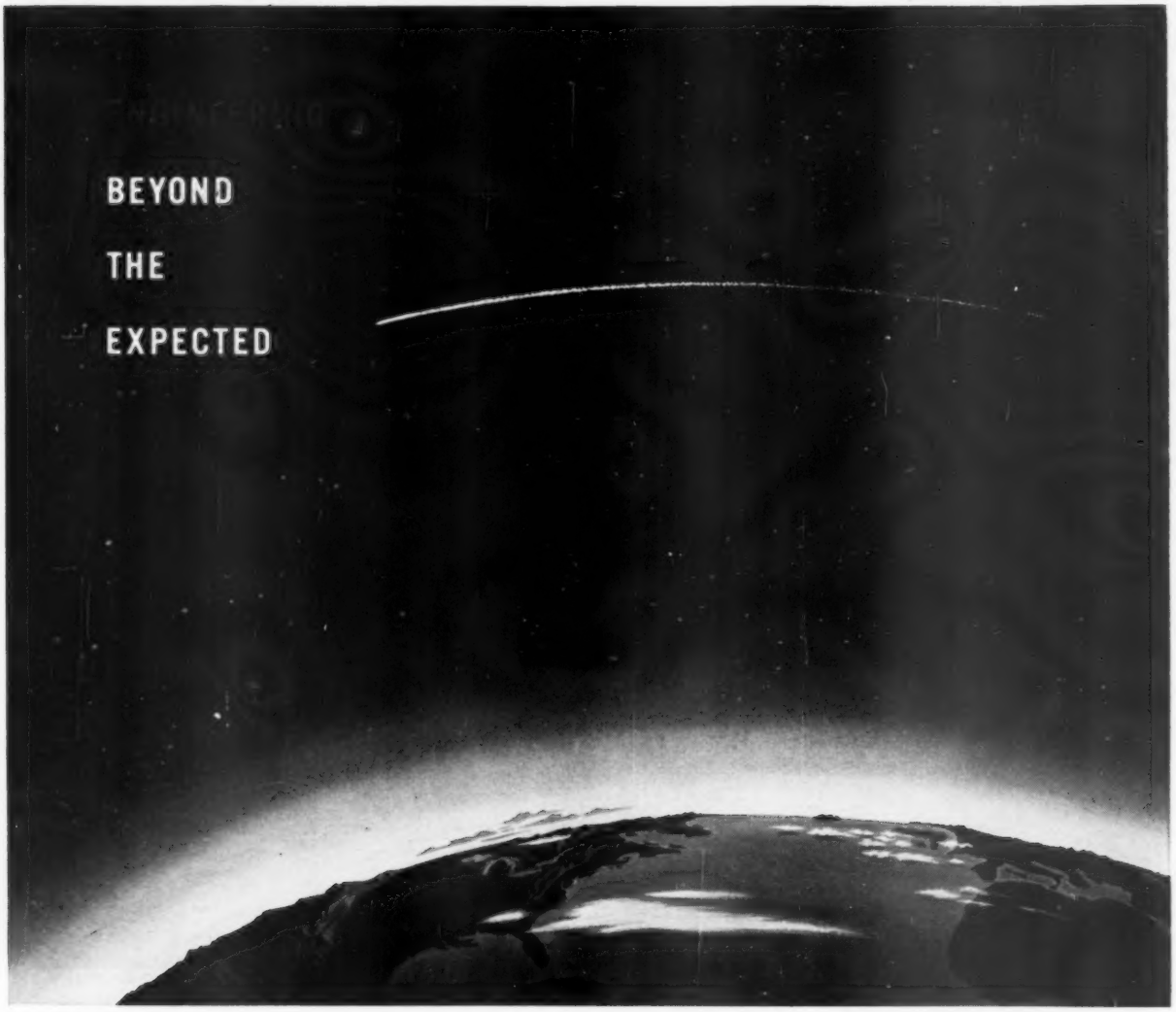
Someone suggested taking the liquid waste across the river to a man-made lagoon. But how? Even the strongest steel pipe couldn't stand the hot acid or the buffeting of river currents.

After talking with a B.F.Goodrich distributor, paper company engineers decided to try rubber hose made by B.F.Goodrich. The lining of this hose is made with a special rubber compound that stands hot acid. A spiral of steel wire buried in the hose keeps it from collapsing even under powerful suction. The thick, tough cover resists scuffing, gouging, and tears.

The first B.F.Goodrich hose line was hooked up, stretched across the water, then fastened to the river bottom by 2200-pound concrete forms. The hose lasted 11 years without leaks, prevented pollution of the river even at times of low water. Because of this fine performance, the company replaced it with 800 feet of new B.F.Goodrich hose this summer.

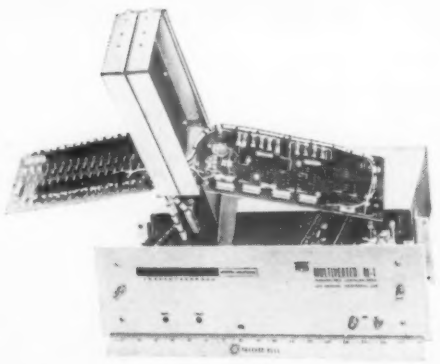
Your B.F.Goodrich distributor has exact specifications for the B.F.Goodrich hose described here. And, as a factory-trained specialist in rubber products, he can answer your questions about the many rubber products B.F.Goodrich makes for industry. *B.F.Goodrich Industrial Products Co., Dept. M-696, Akron 18, Ohio.*

B.F.Goodrich ***industrial rubber products***



FROM TONE CONTROL TO SATELLITE "INTERPRETER"

Variable tone control on radio was a major electronics breakthrough in its day. The MULTIVERTER, which translates *Explorer* satellite "beeps" into numbers for evaluation in a digital computer, is helping to break through the space barrier today. Both are Packard Bell innovations, spanning 30 years in time. Both represent the same creed of *Engineering Beyond the Expected* which characterizes TRICE, the first digital computer to operate at the rate of 100,000 iterations per second... the Missile Impact Prediction System at Vandenberg Air Force Base... checkout and launching equipment for the U.S. Air Force "Thor" and the U.S. Navy "Polaris" missiles... high temperature instruments for atomic research and space exploration... first computer control for television and other advanced electronic equipment and systems for home, industry and national defense.



If you are an engineer with exceptional ability and earning power, Packard Bell offers **opportunities** beyond the expected, too.

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READERS REPORT

Air Conditioner Market

Dear Sir:

Congratulations to BUSINESS WEEK on its recognition of a vast new market opening up in Selling the Consumer on Need for "Seconds" [BW—Sep.5'59,p46].

If I may, I believe one correction is in order. The room air conditioner is looking far beyond the "second purchase" stage.

This unique product should be more correctly considered a third, fourth, or even fifth purchase item.

It is sometimes erroneously calculated that the total market for room air conditioners in this country is equivalent to the total number of electrically wired homes (somewhere around 40-million to 50-million). This is a gross miscalculation. Actually, saturation should be considered two, three, or even four times this amount. . . .

T. H. FORD
ASST. TO EXEC. VICE-PRESIDENT
FEDDERS CORP.
MASPETH, N. Y.

Reason for Intervention

Dear Sir:

. . . you concluded your story about Michigan's tax settlement [BW—Sep.5'59,p38] with the following expression:

"Governor Williams showed he isn't giving up without a fight. His attorney general, Paul L. Adams, joined private plaintiffs in a suit to test the constitutionality of the tax."

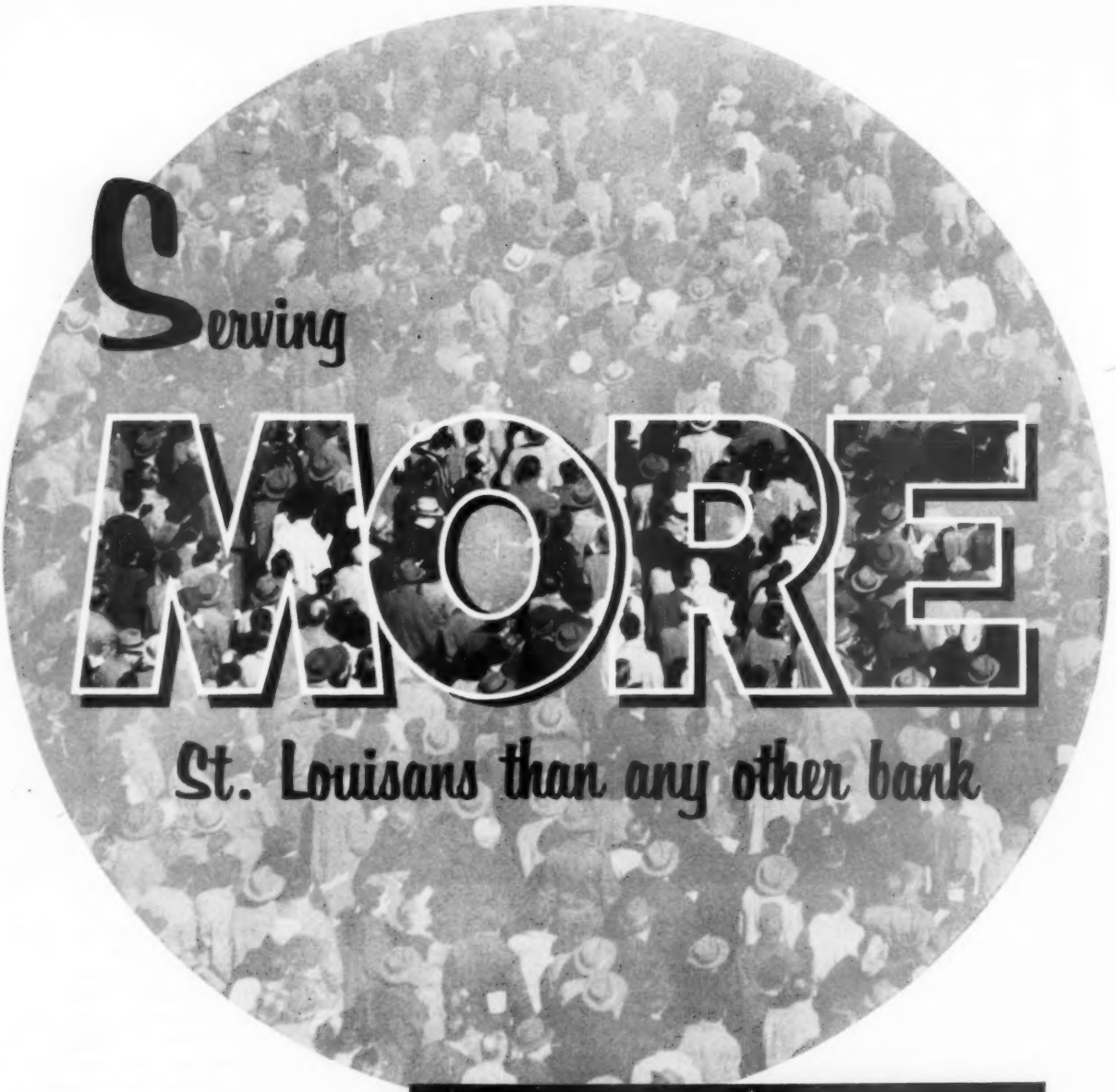
This intimates that Governor Williams had directed me to intervene in this matter. Such a conclusion is incorrect.

In Michigan the Attorney General is elected, not appointed by the Governor. Thus it was, and is, my independent determination that there are grave doubts concerning the constitutionality of the use tax revision enacted by the Legislature.

I, therefore, decided that it was my clear duty to intervene in this matter to test the constitutionality of the act.

As was made clear to the press when my intention to intervene was announced, Governor Williams took no part whatsoever, either directly or indirectly, in my decision. . . .

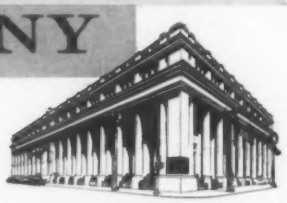
PAUL L. ADAMS
ATTORNEY GENERAL
STATE OF MICHIGAN
LANSING, MICH.



MERCANTILE
TRUST
COMPANY

A BANK'S ACCEPTANCE by the people of its community is an accurate gauge of its ability to serve your business.

SAINT LOUIS, MISSOURI



MEMBER F.D.I.C.

ANOTHER TELEPHONE CABLE OPENED TO EUROPE!

Service now better than ever—calls go through as clearly as calls across town!

You can now call 10 European countries over cable circuits: Belgium, Denmark, France, Germany, Great Britain, Holland, Italy, Norway, Sweden and Switzerland. And through these countries you can reach many others.

Telephoning is the ideal way to keep in touch with business associates or relatives and friends in Europe. Or to call home when you are there yourself. It's personal, fast, two-way. You can exchange ideas, get answers right away, reach agreements quickly.

And it's easy to do. Just give the operator the name and location of the person you want to call.

TELEPHONE EUROPE FOR $12

$12 (plus 10% federal excise tax) is the daytime telephone rate for the first three minutes to 30 countries in Europe. In most cases the rate is even lower at night and all day Sunday.

BELL SYSTEM OVERSEAS TELEPHONE SERVICE

You can telephone all over the world

A message of importance to all food packagers affected by the New Food Additives amendment

Many packagers are concerned about meeting the requirements of the 1958 Food Additives Amendment to the Federal Food, Drug and Cosmetic Act. The new regulation prohibits "the use in food of additives which have not been adequately tested to establish their safety."
Any compound in a packaging material is under question if it migrates to the food product. The burden of responsibility in the use of materials is now on the packager.

CELANESE OFFERS F.D.A. ACCEPTED PACKAGING FILM AND SHEETING NOW!

Celanese, some time ago, reviewed with the Food and Drug Administration the composition of various acetate films and their suitability for packaging foods. Years of animal feeding tests were made on a key ingredient at the request of the F.D.A. to establish the safety of this ingredient. The result of this work proved the safety of the ingredient, and enabled the F.D.A. to accept these special film compositions.

P903, P904, P912 — Cast films noted for clarity and perfection of surface.

S600, S603, S650, S653 — Extruded films having good surface characteristics although not as optically clear as P900 Series.

S732 — Extruded Sheeting having good surface characteristics. Semi-rigid, but can be thermoformed and otherwise fabricated.

To assist processors in the selection of F.D.A. accepted packaging, Celanese has prepared an informative folder covering Celanese Acetate Film for acceptable food packaging. For your copy, return coupon on opposite page.
Celanese Corporation of America, Plastics Div., 744 Broad St., Newark 2, N. J.

Canadian Affiliate: Canadian Chemical Company Limited, Montreal, Toronto, Vancouver.
Export Sales: Amcel Co., Inc., and Pan Amcel Co., Inc., 180 Madison Ave., New York 16.

Celanese®

Celanese ACETATE SHEETING AND FILM

Celanese ACETATE...

ideal for food packaging

Celanese Acetate is known in the food field as the "breathing wrap". Although waterproof—remaining crisp when wet—it is permeable to moisture vapor, carbon dioxide and other gases of food metabolism. This property is vital to the correct packaging of fresh vegetables and fruits. This "breathing" quality of acetate films contributes to a fog-free, sparkling food package—resistant to the growth of mold and fungi. It is also highly greaseproof.

Celanese Acetate has good dimensional stability, excellent printability, and long shelf life. It is easily fabricated into packages and containers by both manual and machine packaging operations. Types of food packages made with the film include window boxes, window bags, overwraps for use in direct contact with food, window envelopes, and window cartons. Acetate sheeting is used for transparent rigid containers, telescope and sliding lids, blister and skin packs.

New folder describes types of acetate film and sheeting available from Celanese and how you can use them in food packaging.

Celanese Corporation of America, Plastics Division,
Dept. 228-S, 744 Broad Street, Newark 2, N. J.

Please send me folder, "Celanese Acetate Film and Sheeting for F.D.A.-Acceptable Food Packaging".

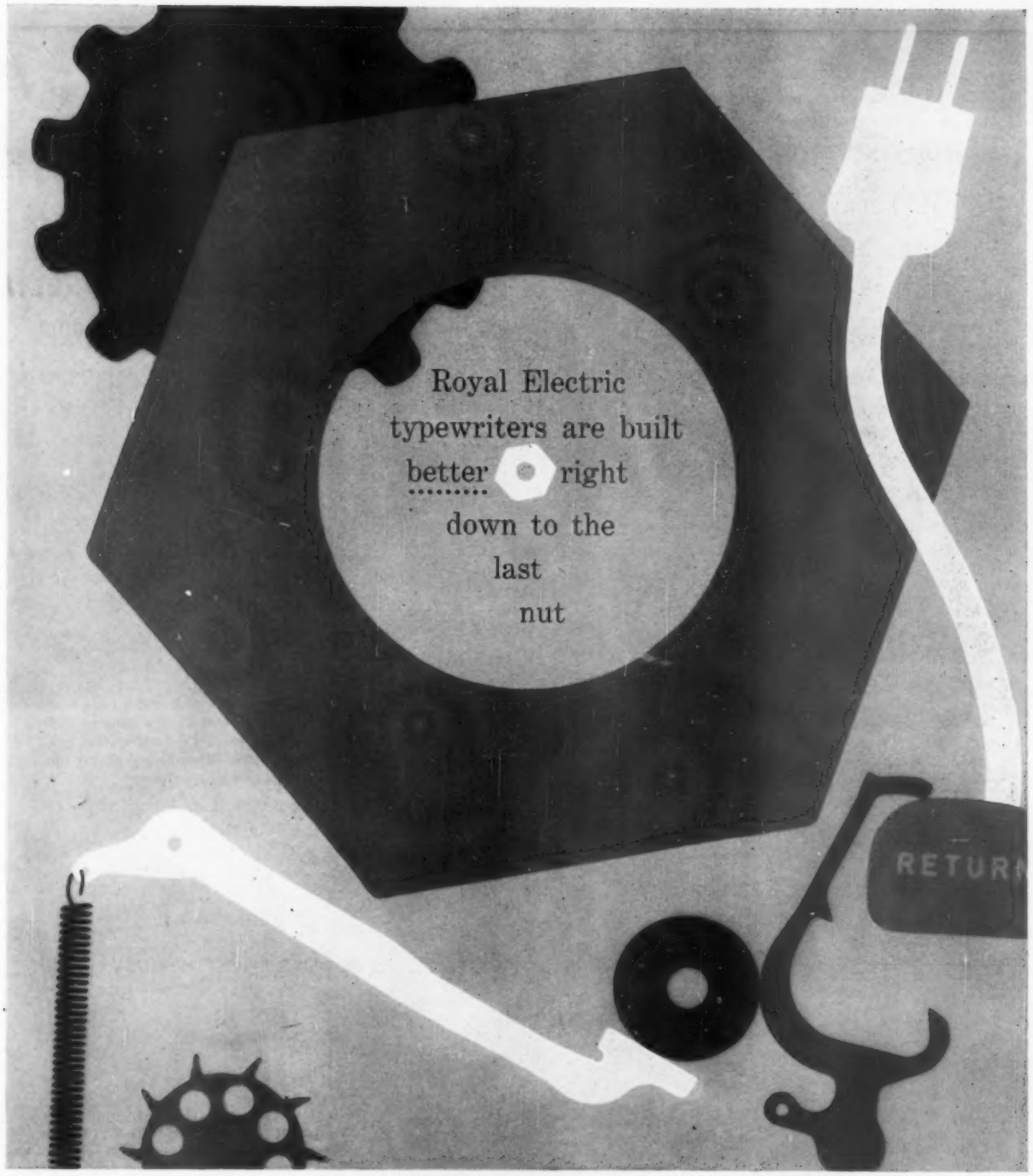
Name_____

Title_____

Company_____

Address_____

City_____ State_____



That may sound like a boast. It's not. There's a simple reason. You have to know how to make a typewriter before you can make an electric typewriter—and the Royal people have made more typewriters for more years now than anybody else.

Here are a few natural results of this old-line-craftsman experience:

Royal Electrics have exclusive features that come from years of knowledge of the needs of both the people who type and the people who dictate. Example: easy interchangeability of carbon and fabric ribbons at no extra charge. No other electric gives you that.

Royal electrics are remarkably free from money-wasting breakdowns.

If you're in the market for a typewriter, look into Royal. It'll take about fifteen minutes of your time, but it could make a whole lot of difference to both your secretary and yourself.

ROYAL®

Product of Royal McBee Corporation,
World's Largest Manufacturer of Typewriters

Changing old ideas on earth moving...

The JOHN DEERE "840" with Hancock "Piggyback" Scraper

"It takes heavy investment to get an efficient scraper of effective size."

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"You have to sacrifice high maneuverability if you're going to get a scraper that really produces for you."

These old ideas are fading fast in the face of the performance of this John Deere-Hancock outfit.

First, compare the initial cost with other scrapers. See for yourself what you save in dollar outlay, keeping in mind you don't need a pusher tractor to give you a *fully loaded (7-1/2-yard) bowl every time.*

Then, consider the added working efficiency you get with the John Deere-Hancock unit which makes a complete, *continuous turn within a 30-foot diameter.*

Finally, you get that outstanding feature you are sure to want—*positive, hydraulic ejection*—which means a fast, easy dump in all soils.

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For detailed specifications, write today.

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John Deere
Industrial Division
Dept. 559, Moline, Illinois

JOHN DEERE *"Specialists in Low-Cost Power with a Heavyweight Punch"*

For the discriminating sportsman, the world knows no shotgun superior to this—Winchester Model 21. Custom built by Olin Mathieson's Winchester-Western Division, it is the finest example of the gunmaker's art.

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EVANS DF LOADER

EVANS

EVANS PRODUCTS COMPANY, PLYMOUTH, MICHIGAN

DOW | **7 NEW IDEAS IN 7 MINUTES**

It takes two things to make the cash register ring today: New ideas—products that people really want—and new materials to make those ideas work. Many of these are plastics materials such as the large, widely diverse line of Dow thermoplastics. These chemically engineered materials give the product designer more latitude and the production man fewer headaches. Sales managers like them, too, because they contribute beauty, durability and *quality* in no small measure. Six members of the Dow family of plastics are portrayed on these two pages in seven different product improvement roles. Reading time: One new idea per minute.

STREAMLINED TV SETS:

NEW EPOXY RESIN BREAKS THE BULK BARRIER

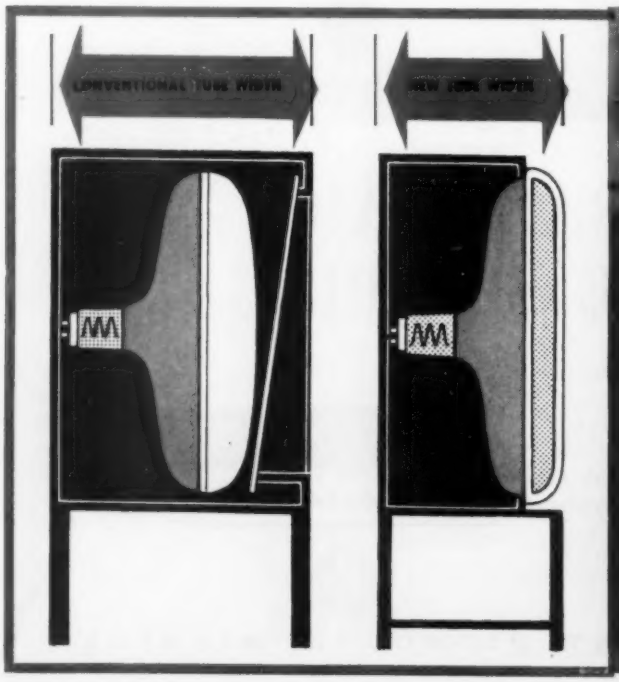
Brighter images, fewer reflections, larger picture areas also accrue from advance in TV tube design

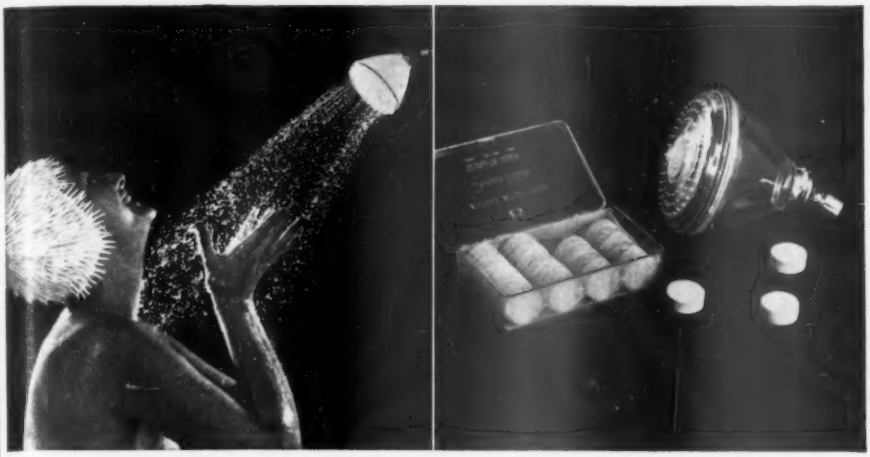
When the TV set manufacturers set out to streamline TV cabinets, the first and foremost problem they faced concerned the "picture tube". Conventional set design calls for a glass safety panel mounted in front of an oval-faced tube. If a contoured safety panel could be laminated directly to the tube, a saving of several inches in the depth of the cabinet would be possible and the tube face could be flatter and almost square due to the extra strength of lamination.

Tube manufacturers brought the problem to the attention of Dow's Coatings Research Staff. The requirements: A material that would firmly bond glass to glass, stand up under the heat generated by the tube and not interfere with the transmission of the picture in any way. And, of course, the material had to lend itself to lamination on a production line basis.

Dow resin chemists developed a new epoxy resin that met these requirements with properties to spare! After months of testing, this new material is now in widespread use.

Eliminating the separate panel has some other important advantages besides streamlining. The area between the tube and the panel always served as a dust catcher, resulting in fogging of the picture. Also, the separate panel often caused double reflections, or glare, in the viewer's eyes. The new integrated, square-faced tube means greater picture area without increasing the basic size of the set.



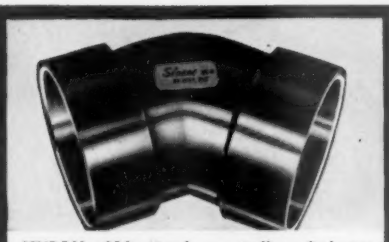


SALES POWER IN THE SHOWER

How would you like a shower fixture that softens, suds and scents the water? Just slip a soap pellet into this new type of shower head and you get a full three minutes of all three. A new product that has brought the sweet smell of sales success to its manufacturer, it's made of smooth, durable Styron® 683. Its crystal clarity harmonizes with any decor and lets you see if calcium deposits are building up inside. The excellent moldability of Styron 683 was put to good use in forming the minute spray holes.

HARDHEADED PERFORMANCE PAYS

Sandlot grid stars wear this football helmet made of super tough Ethocel®. This lightweight, high gloss material is called the aristocrat of the thermoplastics because it has the best resistance to impact, especially at low temperatures. Thus this molded helmet offers a maximum of safety to young line chargers. Ethocel also resists weathering and is easy to clean. Like most Dow plastics, it is available in a wide range of colors. Its exceptional molding characteristics make large one-piece moldings practical and economical.



STYRON 480—Here's a trailer drainage system that will never corrode! Tough, durable Styron 480 can take the vibrations and bumps of normal trailer operation, has excellent chemical resistance.

TYRIL®—The housing of this car compass must be rugged, nonmagnetic and have good resistance to chemicals and distortion over a wide temperature range. These requirements make Tyril first choice.

PELASPAN®—New expand-in-place beads provide lightweight, durable insulation for this new cooler for sportsmen and picnickers. Pelaspan contributes maximum design flexibility, minimum production costs.

TYRIL — Tyril teams excellent dimensional stability and chemical resistance in this insecticide bottle top sprayer. Its superior moldability helps hold close tolerances on close-fitting parts.

• • •

THESE ARE JUST A FEW

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DOW

Cost Cutting Ideas for Your Office...

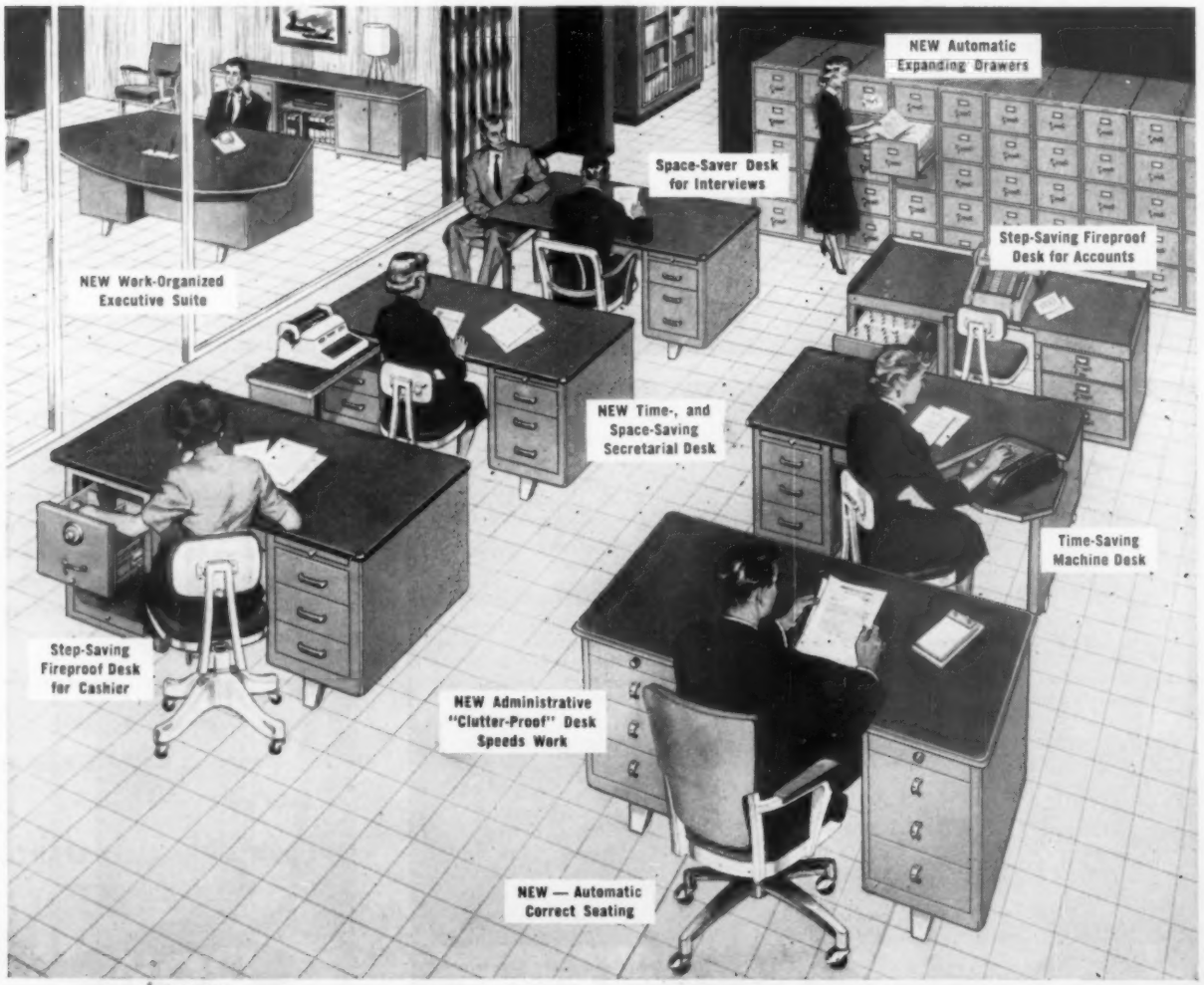
COST REDUCTION, a vital problem in all divisions of a business is nowhere as challenging as in the administrative departments. Office costs, having trebled during the past decade, are today *of primary concern* to top management.

It is in the record that since 1899 Shaw-Walker has been equipping business with "time-engineered" office facilities as inventive and ingenious as American production techniques, — that Shaw-Walker equipment and systems *have cut office costs*, saved floor space and made offices more livable.

For today's *cost-conscious* management Shaw-Walker "time-engineering" research has now produced — The work-organized "clutter-proof" desk; Automatic expanding file drawers; Step-Saving Fire-Files and fireproof desks that protect records at point-of-use; Labor-Saving equipment and systems for tape handling; Error-Proof filing systems; Automatic correct seating chairs; Time-Saving payroll plans; and Numerous Other Devices that facilitate recording, filing and finding of records.

Some of these "*cost-cutters*" are pictured here. All are in the 252-page Shaw-Walker Office Guide.

Throughout, descriptions plainly state economies you can expect from Shaw-Walker "time-engineered" equipment and systems. *Free to Management when requested on business letterhead. Write Shaw-Walker, Muskegon 65, Michigan.*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Largest Exclusive Makers of Office Equipment
Muskegon 65, Mich. Representatives Everywhere

BUSINESS OUTLOOK

BUSINESS WEEK

SEPT. 26, 1959

Business will be as strong in the fourth quarter as the supplies of basic materials will permit.

But there probably won't be enough steel—even if the strike were to end tomorrow. If large users of steel fight one another for enough—or are forced to run below schedules—**profit margins will show it.**

That helps to explain some of the stock market's obvious doubts.

With any luck, **production "lost" in the fourth quarter won't be a permanent loss at all**—in the sense that it won't be made up.

Things that aren't made will just be postponed, in all likelihood.

This, of course, counts on labor troubles being settled before long. **It assumes that consumers' income won't be pinched severely enough to take them out of the market for things they had planned to buy.**

—•—

Earlier estimates that the Federal Reserve Board's index of production would climb to 160 by yearend probably won't quite be realized.

Yet it still seems a good bet that 165 will be reached by spring.

Over-all dollar measurements of the economy—where spending for end product is the criterion—may do better than factory production.

But gross national product can't come up to expectations if, for example, (1) consumers can't get all the new cars they want, or (2) business can't get delivery on machinery as fast as expected.

Gross national product was gaining at better than a $14-billion annual rate in the second quarter, standing at $485-billion. But **the third quarter is interrupting that rise,** an examination of these components (all expressed at annual rates) will reveal:

- **Consumer spending** isn't rising much, maybe a billion or two.
- **Government expenditures** are moving little in either direction.
- **Business outlays** for plant and equipment may be up by $2-billion.
- **Manufacturers' inventories,** instead of rising by $7½-billion, are declining (while wholesale-retail stocks aren't going up much).

Look for a real snap-back in fourth-quarter gross national product, even if steel supplies are imposing some handicaps.

From a current annual rate of perhaps $480-billion, a rise to $490-billion or even $495-billion is quite possible. And the half-trillion-dollar economy is in sight for 1960's first quarter.

—•—

Consumer spending at present is being held back by earnings lost through strikes, either directly or indirectly.

It is probable, too, that there is some slowdown because the second quarter's gain outran all reasonable expectations: People were spending $7-billion more last quarter, at an annual rate, than in the first.

But the outlook is for record employment, record income, and record spending by the time the holiday season rolls around.

Manufacturers' efforts to rebuild depleted inventories will be a major factor expanding employment and production late in the year. But remember, too, that business plans call for **a further rise of $2-billion in the rate of plant-and-equipment outlays in the fourth quarter,** bringing this figure above a $35-billion yearly level.

—•—

Steel production can be expected to hold pretty close to capacity for several months, once the mills get back into operation.

You can see clearly, from the spread of close-downs among steel users, how deeply they have dug into stocks. And you also can see, from the orders they've already placed, how pressed the mills will be.

The longer the strike goes on, the more of a scramble is certain.

—•—

Automobile production will do very well indeed if it comes anywhere near the scheduled 1.9-million new cars in the fourth quarter.

Even companies whose steel supply still is fairly ample must be **starting to worry,** at least about certain specific items. Ford, for example, announced this week that it was reactivating a bar mill that it hasn't operated for 2½ years.

Output of at least 1½-million cars is needed in the fourth quarter just to meet sales and leave a few display models on dealers' floors.

The auto companies will be disappointed if buyers don't snap up at least 1.3-million U. S.-built cars in the final three months of the year. That would only parallel actual registrations in 1956 and 1957 while record-smashing 1955 saw sales of 1.7-million.

—•—

Auto companies doubtless will do better than most at getting steel, due to their standing as big customers, as the mills push to catch up. Pretty much the same is true of the appliance makers.

But, to the extent that a big user of flat steel is successful in boosting output, you can figure **some smaller concern is losing out.**

—•—

Few companies are going to be very happy about **putting off until next year the production of things they could sell today.**

There's always a chance someone else will grab the customer first.

But now there's an uncertainty which isn't always present: the possibility that **growing tightness of credit will smother the market.**

Money unquestionably is tighter now than it has been at a comparable point in recovery from any of the other postwar recessions (page 25). Moreover, it seems apparent that the Federal Reserve is willing to risk flattening out the business curve in 1960—or even tilting it down a bit.

Nevertheless, money controls are usually **slow to assert themselves.** And it also is true that the **consumer feels them little** if at all—until, indeed, they cost him his job through a general business slowdown.

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If you import sugar...

use Chase's world-wide network of 51,000 bankers-at-the-spot

When you take your international trade problems to Chase Manhattan, the services of a world-wide network of 51,000 correspondent banks and branches are immediately at your disposal.

You get the overseas help you need from the banker-at-the-spot . . . the man who has an intimate knowledge of local trade conditions and knows how to make them work for you.

This is possible only because Chase Manhattan has a close personal relationship with its foreign correspondents. Chase Manhattan and its stateside correspondents handle the U. S. problems of the Bank's overseas correspondents. They, in turn, get things done for Chase Manhattan in their own countries. Such reciprocity enables you to get more efficient banking service in world markets.

If you have import or export problems, phone HAnover 2-6000 or write to International Department, The Chase Manhattan Bank, 18 Pine Street, New York 15.

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NEW DECORATIVE CEILING TILE FROM ALLIED CHEMICAL

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Shingles that keep homes cooler. Like the idea? Barrett designers knew you would . . . created these highly reflective Snow White shingles that keep homes as much as 15% cooler, cut insulating costs. All types of Barrett shingles come in Snow White, including the new RANCHLINE—the shingle especially designed for ranch, split-level and other low, wide homes.

Roofs that stay young longer. Here's news for cost-conscious builders, architects, plant owners. Barrett SPECIFICATION roofs are now backed by a new 25-year bond against maintenance expense caused by ordinary wear and tear. Longest guarantee in the industry, it's made possible by improved quality controls in the manufacture of Barrett pitch and felt.

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New rooms for old. With decorative BARRETONE ceiling tile and Barrett insulating plank, a "do-it-yourself" family can transform a dingy cellar into a cheerful recreation room in short order. Barrett's complete line of fibreboard building products also includes painted wall board and high-density sheathing. For information, write to Allied Chemical Corporation, Dept. 99-B, 61 Broadway, New York 6, N.Y.

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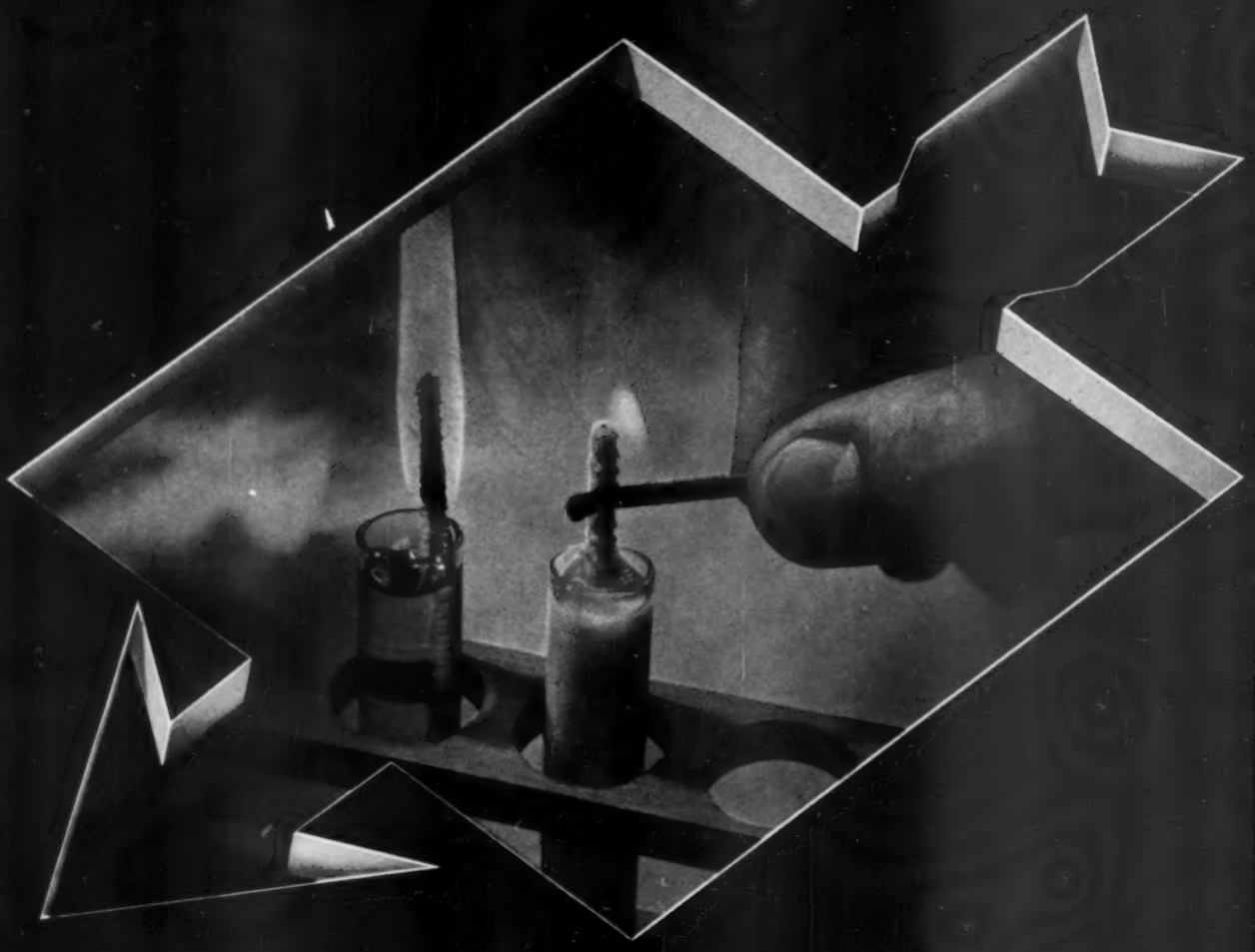
Quality... the best economy of all



Another product of Sunoco research... a fire-resistant hydraulic fluid

The flame test, above, dramatizes the effectiveness of Sun's new fire-resistant hydraulic fluid. Although the wick in the conventional fluid burns readily, the wick in Sun's new fluid just can't be lighted.

The use of this new hydraulic fluid eliminates fire hazards . . . provides increased safety to personnel and equipment. At the same time, operators get the essential performance characteristics of a top-grade hydraulic oil.

This combination of *quality* in engineering know-how, and *quality* in product, proves once again that *quality* in any sense is the best economy of all.

For 73 years Sunoco has meant quality right down the line. Today, this quality is found in more than 400 Sunoco industrial products. SUN OIL COMPANY, Philadelphia 3, Pa.

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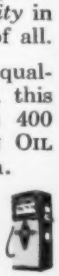

MAKERS OF FAMOUS CUSTOM-BLENDED BLUE SUNOCO GASOLINES

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BUSINESS WEEK

SEPTEMBER 26, 1959

NUMBER 1569

Tighter Money—and a Boom, Too

● **That's where Administration policy is heading as it and Fed carry on all-out defense of dollar against inflation and gold drain, with credit policy as main weapon.**

● **Interest rates, already at 30-year peak, are going higher and all borrowers—business, consumers, Treasury—will feel them. Even now, some are being squeezed.**

● **Risk is explosion of interest rates that would check boom; but Administration is confident it can prevent this, curb inflation, and keep boom going at same time.**

The cost of borrowing, already at the highest level since the 1920s, will be going higher.

This is clear from the position now being taken by both the Administration and the Federal Reserve. They are both engaged in an all-out defense of the dollar, aimed at resisting inflation and curbing the drain on the U.S. gold stock. The weapon they are relying on is credit policy, the same weapon they've depended on since the advent of the Eisenhower Administration.

This week, on the eve of the annual meetings of the World Bank and the International Monetary Fund, the Administration was reaffirming its belief that it can prevent inflation and sustain a high level of prosperity through the use of monetary policy. And it was prepared to use this weapon even more rigorously than it has been used to date.

• **Up Everywhere**—At present, the prime rate on short-term bank loans is 5%. Most banks are insisting that borrowers maintain at least 20% of any loans on deposit; this means that borrowers are paying over 6% for funds that they can use. Moreover, this rate applies only to the biggest and best corporate names; all other borrowers have to pay rates scaled upward from the prime, so that the average effective rate on new borrowing is at least 6.5% and may be even higher.

Certainly the prospect is for higher borrowing costs at the banks and in the capital market. Businessmen will be paying at least current rates for their bank borrowings over the next few months. And corporations wanting to borrow long-term funds in the capital market must think in terms of 6% money. That is the kind of return they will have to guarantee to investors if they want to be sure of getting the funds they need.

All other borrowers face a similar situation. Most of the big commercial banks are in the process of raising—by increasing the discount—the interest costs that consumers pay for credit. The cost of mortgage money has shot up, and is scheduled to continue climbing. And the Treasury itself will be paying higher rates for the money it has to borrow during the balance of the year.

• **No Explosion**—But both the Administration and the Fed think rates can be kept from getting out of hand. Fed officials emphasize that there will be no absolute shortage of credit, which would cripple the economy and bring on a panic in Wall Street. Money will be available—at a price.

The Administration feels sure that if a new explosive rise in interest rates can be prevented, there is no danger of choking off the boom. On the contrary, Administration spokesmen insist that rationing credit through the price mechanism will serve to curb inflation in the domestic sector. They add that high rates will also tend to keep foreign central banks from changing their dollars into gold.

• **Prospect**—Credit demand is already high. That's why the banks raised the prime rate and the Fed followed suit by raising the discount rate—the price it charges the banks for borrowings from the Fed. Demand is expected to remain high because of seasonal needs from now until Christmas; in fact, demand should be greater than the usual seasonal expansion when the steel strike ends and many companies begin rebuilding their depleted inventories. So it is still not clear if there will be enough credit to meet the demand, both for seasonal and post-strike needs.

The prospect is that some borrowers will be refused and others will not get all they want. But the Fed and the Administration believe that only a small marginal group will feel the pinch, and that most legitimate needs will be met.

Some borrowers are already being squeezed. Builders and some small businesses are finding it harder to get credit and have to pay almost prohibitive rates on what they get. This hard-hit group is still a small minority. Most other borrowers are finding that they can get needed funds, but at higher rates than ever before.

The risk is that interest costs will get out of hand, and that prospective borrowers will curb their demands rather than pay the price for credit. If this happens, there is no doubt that the chances of a sustained boom will evaporate. As one Treasury official puts it, "We live in a credit economy, and our prosperity depends on the continued use of credit."

• **Other Weapons**—Control over credit is not the only weapon that the Administration is mustering for its defense of the dollar. Pres. Eisenhower is intent on holding down federal spending, and has both the Treasury and the State Dept. exploring ways and means to get foreign countries to help out in providing funds for underdeveloped nations.

The Administration is also anxious to win Congressional approval to lift the current 4¼% ceiling on new Treasury bonds. This would make it possible to sell long-term Treasury obligations to non-bank investors—a non-inflationary way of financing the national debt. But Pres. Eisenhower has announced that he would not call a special session of Congress to act on it.

This decision makes clear that the Administration thinks it can squeak

through without a crisis until next year, and that it will rely, for the most part, on monetary policy. It will use its other weapons, but they cannot be expected to take effect, at least over the next few months.

• **Treasury Hopes**—Pres. Eisenhower might have demanded a special session if Congress had not passed two other requests, one raising the interest rate on sales of Treasury savings bonds, the other giving the Treasury permission to engage in "advance refundings" (BW—Sep.19'59,p176). The Administration hopes its new 3¼% rate on savings bonds will help stop the drain caused by rising redemptions and falling sales. It is also hopeful that sometime early next year, it will be able to make an advance refunding that would permit a stretchout of the debt.

Some observers doubt that the savings bond program will prosper. They reason that the public is now educated about interest rates and is not likely to buy savings bonds when other, more attractive choices are available. However, Treasury officials think the new rate will mean fewer cash-ins if not greater sales, and they are willing to settle for that for the present time.

Even if Congress lifted the ceiling on sales of marketable Treasury bonds, there is little chance for a significant stretchout of the debt. Most investors still feel that bond prices will go lower—and yields higher—and are not prepared to buy long-term governments until they are convinced that the threat of inflation is past.

• **Fed's Line**—The Fed's line is pretty well set. It is currently following a policy of credit restraint, but, with the steel strike still on, it is not pressing harder at the moment. Once the strike is over, credit may tighten.

This does not necessarily mean another hike in the discount rate. The Fed will tend to rely on the discount window rather than the rate, and refuse credit to banks except when circumstances clearly justify it as a temporary measure. Fed officials are careful to say that they will provide funds for growth, but they are also intent on preventing speculative uses of credit.

• **Confidence**—During the 1956 steel strike, the Fed followed a different course. It was pursuing a restrictive policy when the strike first began; it then eased somewhat during the strike period; as soon as the strike was over, it tightened up, signaling the change by a rise in the discount rate.

This time, the Fed raised the discount rate during the strike. Although this was clearly in response to the rise in the prime rate made by the banks, it indicated that the money managers are confident of the economic outlook even with the strike on. This week, in fact, one Fed official pointed out that "We have had a very strong and expanding economy during the first 60 days of the strike, which should continue once the strike is over."

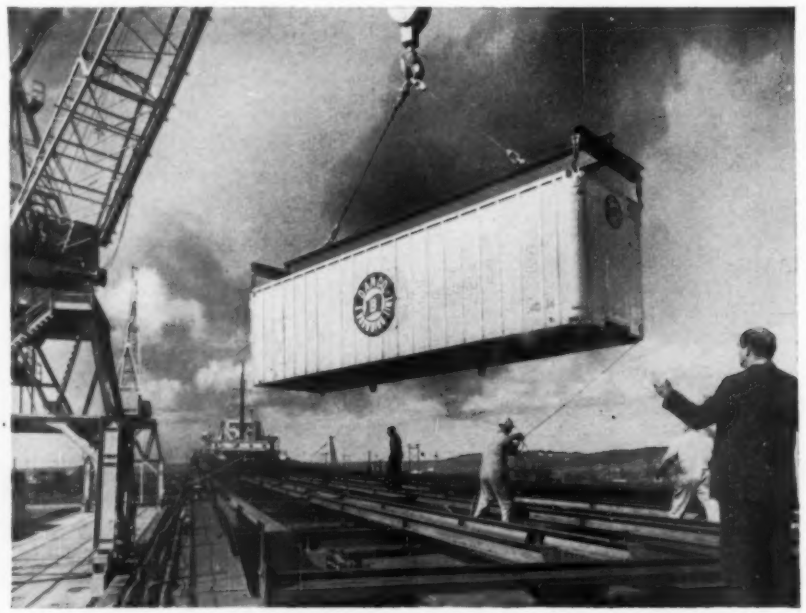
The Fed is hoping that it will not have to increase its restrictiveness in any overt way after the steel strike is over. As one official put it, "The 1956 settlement was inflationary; we are hoping for a non-inflationary settlement now." But it has no assurance, of course, that the demand for credit will not lead to another hike in the prime rate and further belt tightening in the capital market.

Some bankers are already talking in terms of a new hike in rates. They point out that finance companies, which can borrow either at the banks or in the commercial paper market, are getting most of their credit from the banks. Consumers, it is pointed out, are less affected by interest rate costs than other borrowers.

• **New Factor**—But while the Fed hopes to avoid another round of rate hikes that could imperil the boom, it sees no real relaxation in rates, unless, of course, the steel strike goes on indefinitely. As long as the U. S. balance of payments is in deficit, as it is now, there is no opportunity for lowering rates—for that could touch off a run on the gold supply. One Fed official explained, "We don't want to attract foreign money as much as we want to avoid a continual drain on gold."

This adds a new factor to Fed credit policy. In the past, it has been mostly concerned—and guided by—domestic considerations. But now the Fed, and the Treasury, are carefully watching foreign developments. They want to assure the rest of the world that the dollar will be defended.

• **Aim**—The Administration is fully aware of the risks—both political and economic—in this fight. Its officials know that if there is a new explosion in interest rates, it will certainly hit the stock market and business in general. But they feel that if rates can be sustained, even somewhat above present levels, inflation can be beaten back and a new stability achieved. Said one Treasury man this week, "If people can become convinced that we mean to fight inflation, then we can have high rates and good business at the same time."



"Fishy-Back" Reaches Great Lakes

Package freight service on the Great Lakes, abandoned during World War II, was resumed last week. This time it is taking the form of "fishy-back"—truck trailers fastened to the decks of ore boats (picture). Shippers such as Jeno F. Paulucci, Duluth food processor, had pressed for fishy-back service, expecting savings of 15% over all truck rates to downlake and Eastern markets. Service was begun by Detroit Atlantic Navigation Corp., a subsidiary of Browning Lines, Inc., when it took on cargo in Duluth for Detroit and Cleveland. Last month, the Interstate Commerce Commission suspended Browning's proposed rates pending an investigation, but shippers put on such pressure that ICC revoked its suspension. So Browning went ahead, instead of waiting till next season. Browning has invested $1-million in trailers and bodies, deck conversion, cranes, and other equipment.

The Federal Budget Picture

Receipts (in millions)

	Fiscal 1959	Fiscal 1960		
	Actual	Jan. 1959 est.	New est.	Change from Jan.
Indiv. income taxes	$36,716	$40,700	$41,000	+ $300
Corporation income taxes	17,309	21,448	22,500	+1,052
Excise taxes	8,506	8,945	9,100	+ 155
All other receipts	5,628	6,007	6,400	+ 393
TOTAL	68,158	77,100	79,000	+1,900
Expenditures				
Major national security	$46,411	$45,805	$45,713	— $92
Intl. affairs & finance	3,750	2,129	2,051	— 78
Commerce & housing	3,423	2,243	2,925	+ 682
Agriculture	6,562	5,996	6,052	+ 56
Natural resources	1,670	1,710	1,792	+ 82
Labor & welfare	4,422	4,129	4,407	+ 278
Veterans	5,175	5,088	5,133	+ 45
Interest	7,686	8,096	9,079	+ 983
General government	1,600	1,735	1,678	— 57
Contingencies		100	75	— 25
TOTAL	80,699	77,030	78,905	+1,875
Surplus or Deficit (In billions)				
	$12.5	+$.1	+$.1	

In Balance at Last

A bigger than anticipated business boom is putting Pres. Eisenhower on the road to one of his cherished aims—a balanced budget for the last full fiscal year he will preside as head of government.

The President's fiscal experts in a review of budget prospects this week forecast a surplus of $100-million for the fiscal year ending next June 30 (table). This is in spite of an expected $1.9-billion upsurge in federal spending above the level expected when the budget was presented to Congress last January.

• **Midyear Appraisal**—The Administration's Federal Budget Midyear Review—a traditional document following adjournment of Congress—predicts spending by the federal government of $78.9-billion by next June 30 and receipts in taxes totaling $79-billion. The estimate for taxes collected obviously reflects anticipated business activity.

Budget Director Maurice H. Stans admits in the review that the government last January underestimated the strength with which the economy would rebound from the recession. The latest estimates show the total output of goods and services in the economy crossing the $500-billion mark early next year and hitting around $511-billion in the second quarter of 1960.

This hopped-up performance means more revenues will be pouring in. Though spending is slated to rise $1.9-billion, revenues are expected to jump by the same amount. Corporate profits will account for the major share of this increase—slightly more than $1-billion, to a total of $22.5-billion. This would mean a rise of approximately $2-billion in before-tax profits.

• **Item by Item**—Biggest factor in the higher spending anticipated is a $1-billion rise in interest on the national debt. Interest costs are estimated at $9-billion, up from $7.7-billion in fiscal 1959.

For commerce and housing, spending will be up a predicted $682-million, principally because of an increased postal deficit of approximately $500-million. Of this, $350-million is due to Congressional refusal to raise postal charges, the rest mainly to an overestimate of postal receipts. Most of the remaining increase in this sector is accounted for by expanded housing programs.

For national security, however, expenditures are down $92-million to a total of $45.7-billion, because of a $50-million decrease in military assistance abroad and $40-million less for atomic energy programs. Total defense spending is unchanged at $41-billion, though some $87-million more is slated for research and development, mainly for ballistic missiles. This is partly offset by $64-million decline for military construction.

For labor and welfare, a spending increase of $278-million is forecast, mainly because of higher Congressional appropriations for the Dept. of Health, Education & Welfare. Of this increase, $90-million is for medical research, $70-million for education programs, and $37-million for hospital construction.

NBC Agrees to Shed Philadelphia Radio-TV

The television industry this week lost its first major antitrust battle. To settle a three-year suit by the Justice Dept. under the Sherman Act, Radio Corp. of America and its wholly owned subsidiary, National Broadcasting Co., signed a consent decree requiring them to give up their TV and radio stations in Philadelphia.

The antitrusters filed suit (BW—Dec. 8'56,p36) a little more than a year after RCA-NBC had acquired their radio station WRCV and its companion WRCV-TV from Westinghouse Broadcasting Co. in exchange for Cleveland stations and $3-million. They alleged that NBC had forced the swap on Westinghouse by threats of withholding network affiliations.

• **Terms of Decree**—The consent decree requires RCA-NBC to "sell, exchange, or otherwise dispose of" the Philadelphia stations by December, 1962. It bars the companies from acquiring any other Philadelphia TV station for 10 years or any other radio station in that area for a period of five years.

In effect, the decree is formal notice to the networks that dealings in stations in major audience markets will henceforth require approval of the Justice Dept. as well as the previously required approval of the Federal Communications Commission.

In disposing of the Philadelphia stations, RCA-NBC must give the Justice Dept. 30 days' notice before applying to FCC for approval. This waiting period is intended to give the antitrusters time to go to court if they wish to oppose the deal.

RCA-NBC are also required by the decree to give the Justice Dept. 30 days' notice of any plan to acquire a TV station in the seven other largest markets—New York, Chicago, Los Angeles, Detroit, Boston, San Francisco, and Pittsburgh—or to represent any TV station for national spot advertising, except specified stations in Denver, St. Louis, Miami, Louisville, Schenectady, and Honolulu.

Khrushchev and America Get

In his remarkable tour of the U.S., Nikita Khrushchev has seen the accomplishments of American-style capitalism for himself, listened to blunt talk from some of his hosts, and demonstrated his ability to use either smiles or angry threats to impress his audience. When the going was good, he behaved very much like an American politician running for office. When it got rough, he didn't let anybody forget that he is the leader of a powerful and ambitious nation.

The cross-country tour was basically a preliminary to the moment when this week the Soviet leader and Pres. Eisenhower attempt serious discussions at Camp David, Md. Until these talks and the President's later trip to Russia are concluded, the full effect of the Khrushchev visit cannot be judged. However, some conclusions can be drawn now from his barnstorming tour of seven American cities:

- Any idea that the ex-shepherd and ex-miner could be swayed by a personal look at U.S. industrial might and high living standards can be laid aside once and for all. He knows what he wants—and acts like a man who's convinced he holds enough aces to take the pot.
- Many who saw and heard the Soviet boss can't escape the feeling that U.S. business and community leaders came off second best in the exchanges—and that perhaps massive public dinners are dangerous places to conduct diplomacy anyway.
- Although many influential Americans have been left with a new and chilling appreciation of the challenge posed by Khrushchev's Russia, they still have a feeling that he is almost as anxious as we are to change the ground rules of the struggle between Communism and capitalism.

I. Khrushchev the Man

As Khrushchev himself noted, businessmen flocked to see the world's top Communist to determine "if I have horns on my head."

The object of all this attention—the first Soviet chief of state ever to visit the U.S.—turned out to be a short and portly little man who at first sight is hard to take seriously as the undisputed leader of a great world power. This is the Khrushchev whom many thousands of Americans along the route saw through the wall of security forces that surrounded him—a bald and smiling figure who waved his stubby fingers in greeting upon the least encouragement.

On television, he often came through as a plain-spoken but moderate man who lost his temper only when provoked by obviously hostile questions. He was quite capable of invoking the Ten Commandments on a plea for disarmament and insisting that Communist Russia wants "to build a world as taught by Christ."

- **The Other Khrushchev**—This Khrushchev, reinforcing his arguments with an endless collection of Russian proverbs, is only one of the images that has been left behind by his tour. To many Americans, especially those who had the opportunity for a close and careful appraisal, a different and more impressive Khrushchev was clearly evident. They found a well-trained old Bolshevik with a generous streak of pure ham in his nature, and an iron determination and conviction that the entire world is destined to live under Communism.

The difference between the real and

Acquainted–With Mixed Emotions

the apparent Khrushchev is essential to understanding some of the things that happened on his trip across the U.S.

II. The Real America

Optimistic Americans, up to and including Eisenhower, have wondered whether some of Khrushchev's attitudes toward cold war problems were based on mere misconceptions about 20th-Century America and about the willingness of its people to defend it.

"Mr. K" had ample opportunity to see for himself. His train ride from Washington to New York gave him a look at an important slice of the nation's industrial might. He couldn't miss seeing that the typical American lives in a home as good as the one recently exhibited in Moscow. The meaning of the freeways in Los Angeles, and the contented look of the crowds that turned out to stare quietly at the world's top Communist, could not have been lost on him. He saw New York's skyscrapers, satisfied himself that a worker picked out at random in the IBM plant at San Jose, Calif., really makes $118 a week, and went through the ritual of visiting a typical supermarket.

• **Uninterested Tourists**—Certainly his hosts lost no opportunity to recite U.S. virtues and strength. But with only an occasional lapse, the visiting Russians

Premier's-Eye View Of New Yorkers

On tour of the nation's biggest city, Nikita Khrushchev saw curious but undemonstrative crowds sprinkled with a few jeering pickets; at closer range he mingled with civic leaders at lunch (left) and businessmen at dinner (below).

Labor's Leaders

In San Francisco, besides drawing a warm welcome (below), Khrushchev dined privately—and angrily—with union heads including (from left) O. A. Knight of Oil, Chemical & Atomic Workers, James Carey of Electrical Workers, Walter Reuther of UAW, Emil Rieve of Textile Workers, Joseph Curran of NMU.

let it be known that they couldn't care less. Soviet newsmen, most of whom had visited the U.S. before, pointedly ignored the scenery that flashed by their windows. In discussions with their U.S. counterparts, they made no attempt to claim that Russians have it equally good. Instead, they cited U.S. unemployment figures in depressed areas and argued, as Khrushchev often has, that the U.S. economy is dependent on war business and that therefore the "ruling circles" oppose disarmament and a relaxation of tensions.

Khrushchev showed a mild interest in the lockers at Union Station in Washington and in the canned beer consumed by newsmen on the train from Los Angeles to San Francisco. In a speech before a luncheon sponsored by Spyros Skouras of 20th Century-Fox Film Corp., he freely admitted that the U.S. has the most advanced industrial system in the world. Khrushchev even confessed "to a little bit of envy" of the supermarket he visited in San Francisco. And at the IBM plant nearby, he was obviously impressed with the employees' cafeteria.

III. Coexistence on His Terms

At the same time, though, Khrushchev repeatedly hammered at the theme that Communism will supplant capitalism, just as surely as capitalism replaced feudalism. "We are catching up and soon will surpass you," he predicted. Citing a supposed U.S. government prediction that the Soviet economy will move into the lead by 1970, Khrushchev cracked, "I now read less Karl Marx than I do American economic reports." He was reportedly perplexed and disappointed that members of the Economic Club of New York argued ideological questions and cited the virtues of the American system, instead of sticking to economic points.

But despite all Khrushchev's generalities about reducing trade restrictions as a first step in easing the cold war, he consistently refused to say outright what Russia wants to buy from the U.S.—or what the Soviets might sell. As the Premier put it, his country is ready to trade when barriers are lifted, but "we are not here to beg."

• **Goals Described**—Khrushchev's goals on the U.S. trip apparently come down to this: He wants relaxation of tensions, but on his own terms. Shortly before his arrival, he outlined his terms for all the world to see in Foreign Affairs magazine. In his pitch for peaceful, competitive coexistence, he offered his brand of solutions to the questions of disarmament (page 184), nuclear testing, Germany, and East-West trade barriers.

On the U.S. swing, he has made little or no departure from the original script. But there's little doubt that, with one eye on the unprecedented number of correspondents covering his tour, he viewed the trip as a golden opportunity to score points with neutral and undeveloped countries and to build pressure on Pres. Eisenhower in advance of the Camp David talks.

• **Moon Glow**—If such was his purpose, some of his antics and apparent inconsistencies make sense. For example, he landed in Washington triumphant over his countrymen's successful moon shot, but he must have been nettled by the lack of concern shown both by U.S. leaders and the curious crowds that greeted him. Instead, his hosts insisted on discussing issues he preferred to ignore—such as the lack of press freedom inside the U.S.S.R., the suppression of Hungary, and his often-quoted remark that "we will bury you."

By the time the Soviet party reached California, it was quite aware of criticism abroad that Americans were being unnecessarily rude to Khrushchev and going to rather absurd lengths to insulate him from crowds. At luncheon in the 20th Century-Fox studios, the Soviet Premier let it be known that he was "profoundly disappointed" that the police would not allow him to visit Disneyland—neglecting to say that his own security aides have vetoed the idea.

• **Threat to Return**—That evening, when Mayor Norris Poulson needled Khrushchev about his remark that Communism will "bury" capitalism, he seized his opportunity. He completed his lengthy prepared speech, stuffed the text in his pocket, and launched the most naked threat of his tour: to cancel the whole trip, return to the Soviet Union where missiles "are on the assembly lines," and renew the cold war in dead earnest.

Almost certainly, Khrushchev was bluffing. In fact, the next day he assured newsmen he would continue the tour. But the stakes were high. So word went out from the White House that everyone should be nicer to the Soviet guest.

Henry Cabot Lodge, traveling as a one-man "truth squad" with the Premier, was advised to tone down his public statements. Lodge passed the word to San Francisco Mayor George Christopher to avoid any needling comments.

• **Truman-Type Walk**—The advice probably wasn't needed. San Francisco, going out of its way to prove that it is more cosmopolitan than rival Los Angeles, gave Khrushchev the most enthusiastic reception of his tour. Khrushchev, visibly pleased, took advantage of relaxed security to mingle with crowds—even to the extent of taking a Harry Truman-type stroll in the early morning, waving to cable car riders as he went.

In San Francisco, he solemnly disclosed his conviction that most U.S. leaders—as well as its people—genuinely share his desire for peaceful competition as a substitute for the cold war. True, a stormy bad-tempered meeting with a group of top union leaders, led by Walter Reuther, ended in a pronouncement by the unionists that their differences with the Communist leader were "irreconcilable." But Khrushchev recouped—at least in the view of foreign observers unfamiliar with the U.S. scene—by receiving a roaring ovation during a visit to the hiring hall of left-wing Harry Bridges' Longshoremen's union.

In Iowa, buoyed by a warm welcome Khrushchev was all smiles. Let's have summit meetings twice a year, he said. And if Khrushchev was happy, Washington was at least relieved. U.S. officials now felt that the tour was back on safe ground.

IV. Optimism Diminishes

Still, the stormy character of Khrushchev's tour had dampened even the modest hopes Washington had at the time of his arrival (BW—Sep.19'59, p30).

At midweek, U.S. officials still hoped that the private talks between Eisenhower and Khrushchev at Camp David could shift the debate from the ideological level to a practical discussion of ways to reduce tension—and that Khrushchev would talk business on this level. But the general feeling is that the road to U.S.-Soviet understanding will be rougher and longer than most officials had estimated.

• **Tougher Foe**—Even veteran Soviet experts in the capital have been sobered by this firsthand experience with Khrushchev's personality. On his U.S. visit, Khrushchev has shown himself to be tougher, more aggressive, more ruthless, more intolerant, and more petulant than officials had thought. To some extent, the officials concede, Khrushchev's outbursts of temper have been justified. It may have been unfortunate to send Ambassador Lodge—an old enemy of the Soviets in the United Nations—along to take issue with the Soviet leader's statements. The questions addressed to Khrushchev may also have concentrated too much on ideological issues—which cannot be resolved—and not enough on practical problems.

In the light of the trip so far, the mood in Washington this week has been one of some disappointment and considerable frustration. There is even a feeling that somehow both hosts and guests may be muffing a chance for a new start in East-West relations by trying to outshout each other in public.

SUCKLING PIG is roasted on spit to feed Seattle businessmen at promotional party for Valhalla housing development.

MINSTRELS in Norse costume serenade the guests invited to outdoor feast by developers of community of high-priced homes.

Viking Feast Promotes High-Priced

DINERS wear chamois bibs and use medieval implements to eat the roasted meats and quaff mead. Goblets, plates and wooden spoons were made especially for occasion.

A real estate developer last weekend turned the clock back to Viking days in a splashy attempt to reach what he considers the "most untapped level" of the home buying market—the top income groups.

To promote a 126-acre housing development near Seattle, K. A. Sanwick, Jr., and his associates staged a lavish outdoor party (pictures). In keeping with the name of the project—Valhalla—the affair was given a Nordic theme. Strapping young athletes and fair-skinned blondes in medieval garb served 300 Seattle businessmen haunches of spring lamb, beef, suckling pig roasted on a spit, loins of pork, and king salmon. Rain, not unusual in Seattle, didn't dampen the spirits—separate tents were set up for drinking and feasting. And although no direct selling was done during the festivities, plenty of brochures were kept handy.

• **Playground Setting**—Valhalla stretches along the lazy, narrow Sammamish River north of Seattle, overlooking Lake

Homes

Washington. The residential development will sport a private golf course, a gas-heated year-round swimming pool enclosed by an "air house" during the winter, a yacht basin, a private club (called Odin's Hall) exclusively for residents, tennis courts, and stables --plus some fancy prices.

Lots will sell for $7,500 to $12,000, with the average at $10,000. About 420 individual sites will be carved out of the hillside development. The cheapest house permitted will be $25,000, with many expected to range between $70,000 and $80,000.

Sanwick, an ex-real estate salesman, says his project is "the ultimate in relaxed, casual living." People, he thinks, are changing their habits and want their leisure at home—so he is offering a "luxurious playground at your doorstep."

At the same time, Sanwick says lots aren't so big that they would burden the homeowner with upkeep, since gardeners are expensive and hard to find.

Bethlehem Revises Bonus Plan

Incentive pay for high executives, through "dividend unit" scheme, gets court approval after a two-year law suit and a last-minute new argument.

Stockholder suits to force corporations to cut their executive pay scales seldom get far in courts; judges traditionally decline to rule on the reasonableness of compensation. However, Bethlehem Steel Corp. last week gained court approval of a settlement in just such a suit only by revising its new dividend-unit bonus plan (BW—Jun.20 '59,p38).

The dividend-unit plan itself was not directly involved in the 1957 stockholder suit attacking Bethlehem's old system of liberal cash bonuses for executives who are also directors (all Bethlehem directors are executives). But it was accepted by the dissident stockholders in settlement of the suit. However, when the settlement came before a court for approval two months ago, New York proxy-fight lawyer Stanley L. Kaufman intervened with a protest in behalf of another minority group.

Last week, in Delaware Chancery Court, Vice-Chancellor William Marvel, Jr., approved settlement under a revised dividend-unit plan, subject to favorable vote by stockholders.

• **Generous Bonuses**—Bethlehem has long been noted for generosity of its incentive plan for executives. Last year, cash bonuses made up more than two-thirds of the total compensation of Bethlehem executive-directors. In BUSINESS WEEK's survey of 1958 executive compensation (BW—Jun.13'59,p46), 10 Bethlehem executive-directors were among the country's 25 highest-paid corporate officials.

The incentive plan that, with amendments, has been in effect since 1936 bases bonuses on the cash dividends paid on common stock. Most recently the amount going into bonuses has been 4½% of the total paid out in dividends.

The dividend-unit plan offered this summer for stockholder approval is modeled after a system pioneered by du Pont. Its objective was not reduction in compensation but a lighter tax bite on executives. Instead of cash bonuses, executives will get dividend units—the right to collect payments equivalent to the dividends paid on a given number of common shares, much as if each year's bonus were paid in stock. The payments are spread out, with reduced tax liability.

• **Second Objection**—The plan called for calculating the number of dividend units to be awarded on the basis of corporate net income for the year, rather than as a percentage of dividends paid. If a dividend unit is thought of as having the value of a share of stock, the total dollar value of the dividend units awarded each year would amount to 2% of net income. Dividend units would be divided among directors in proportion to their cash compensation for the year.

Each unit awarded entitles the executive—or his estate—to get dividend-equivalent payments every year up until 15 years after he leaves the company as a result of death or retirement. Thus, the cost to the corporation tends to be cumulative. In the plan, no over-all ceiling was placed on the total of cash payments; this was one objection raised by the second group of stockholders.

Kaufman's group argued that the plan did not assure any long-run reduction in top management's compensation. The objectors also protested that court approval would give the new plan a legal blessing that might bar later suits on its merits.

Vice-Chancellor Marvel agreed there was "no clear guarantee" that such payments wouldn't exceed 4½% of dividends—the level of the old cash bonuses. He also agreed that the settlement "should not be used to provide a basis for obtaining advanced judicial approval of an experimental substitute incentive plan for Bethlehem executive-directors."

• **Compromise**—Bethlehem then modified the plan with three major changes as approved by the court:

• By stipulation, any dissatisfied stockholder is still free to bring another suit attacking the plan.

• While the plan is in effect, aggregate compensation to the directors beyond their present base salaries—including both dividend unit payments and any salary increases—cannot exceed 4% of the dividends paid over that period. This means, said Marvel, that directors' total pay will always be at least 11% less than that received under the old cash-bonus plan.

• The new plan replaces the cash bonus system as of July 1, 1959, but no dividend units will be awarded until next year. Thus, directors apparently will not get bonuses for the last half of 1959—although there is nothing to bar Bethlehem from giving them salary increases to make up for the lower bonuses this year.

Unions Unite to Fight on Steel

● At the AFL-CIO conference in San Francisco, all labor is joining forces to back steel strikers to the last ditch.

● It's taken for granted that the Administration will seek a Taft-Hartley injunction to halt the walkout for 80 days.

● The strategy is to raise money to support a return to picket lines when the court order runs out.

Labor is massing its full strength—for the first time in U.S. history—behind a union engaged in a nationwide strike against a major industry. It intends to encourage the United Steelworkers to continue its fight—beyond the term of a possible Taft-Hartley injunction—against what AFL-CIO grimly calls "the greatest challenge the labor movement has faced since the railroad strike of 1922."

Steelworkers are now well into the 11th week of their strike against basic steel producers. Steel shortages are being increasingly felt through the economy (BW—Sep.19'59,p27). A few weeks ago, Labor Secy. James P. Mitchell indicated that the national emergency provisions of the federal labor law would be invoked if steel needs become acute, probably early in October.

• **Injunction Likely**—In Washington, in the steel negotiating headquarters in New York, and in San Francisco, scene of the AFL-CIO's biennial convention, only the timing of a Taft-Hartley injunction seemed to be in doubt this midweek. Everybody apparently was taking for granted that there would be one.

The action taken by the federation's convention—to mobilize all labor behind the steelworkers—must be interpreted with that in mind. Unions are not being asked just to stand behind the strikers for the last remaining days of their walkout, before federal intervention. They are being mobilized for an angry, determined resumption of the strike after the end of the Taft-Hartley injunction period.

I. Massive Assistance

George Meany, president of the AFL-CIO, called on all federation affiliates this week to assure support for USW for a strike "likely to continue for many weeks." He charged that "giant steel corporations have chosen to test the strength of the union, and its allies, to see whether the steelworkers can be starved out."

Labor can't let this happen, Meany warned. The strike in steel centers across the country is now "the strike of the entire AFL-CIO . . . everyone of us is involved in the war." A defeat for USW would be "just as costly to the members of every . . . union in the federation."

Up to now, USW has financed its strike through its own resources—a treasury of more than $35-million. Idle steelworkers and their families received little or no help from anyone. But, Meany noted, this can go on only so long. Unaided, the strike can't be continued indefinitely against the "wealth, influence, and power of the big steel corporations."

• **Contributions**—Under a support program ratified by convention delegates:

• Every organized worker in the country is being asked to contribute an hour's pay each month to a special steelworkers' defense fund, for the "support and sustenance" of USW strikers. This fund appeal has a goal of roughly $25-million a month.

• National and international unions of AFL-CIO and other subordinate bodies of the federation are asked to assume responsibility for collecting this money and forwarding it monthly to AFL-CIO Secy.-Treas. William Schnitzler. But the money is to come—as much as possible—from the contributions of members, to give them "a real sense of participation in this heroic strike."

• Unions and other federation subordinate bodies are also asked to make "such other donations as they can afford" to the strike fund. By midweek, unions had contributed or pledged more than $5-million immediately, plus continuing contributions exceeding $1-million every month for the duration of the steel walkout. This is only the beginning. Within the next few weeks, the amount will rise sharply as most of AFL-CIO's 135 unions approve contributions ranging from a few thousand dollars from small unions with pinched treasuries to a million dollars or more.

Nothing like this has ever happened before. From time to time, a union—under pressure in a long, hard strike—has received help in the form of a money gift or an interest-free loan from a few other unions. In a half-century, none has ever had the full support of labor.

This is highly significant. It shows just how important the steel strike looms in the eyes of all labor.

II. Talk of Class War

Charges of "a developing conspiracy on the part of big business" against labor were the keynote of the opening days of the convention. Few union speakers failed to stress it. More than at any time in many years, an atmosphere of class struggle settled over a convention of a major labor body.

It was reflected in the reaction to a message from Pres. Eisenhower—the coldest ever—and to an appearance of Labor Secy. Mitchell, who once had the friendship of AFL-CIO and many of its unions. Mitchell was heard with cold silence. There were boos when he alluded to the possible necessity of using the Taft-Hartley national emergency injunction clause in the steel strike.

• **Accord With Mitchell**—The Secretary agreed with labor that invoking the injunction clause probably would not settle anything. It would put workers back into the mills, he said, but otherwise it "would merely stop bargaining for the period of 80 days—very likely no agreement would be reached and the strike would be resumed with no further redress as far as government legislative action is concerned."

Mitchell added: "I am certain that the steel workers, if they are returned to work by an injunction, will certainly obey the law, but they are not going to return to work with enthusiasm; they are not going to return to work with any great love for the employer, and the resentments that have been built up in this strike will be felt during the whole 80 days in various ways.

"I don't see the Taft-Hartley injunction as a solution to this problem. I see it only as a legal means, provided by law, which the Administration will have to use if it becomes necessary."

The biggest point of contention between AFL-CIO and Mitchell lies in his reference to the injunction as "a legal means . . . the Administration will have to use." The unions contend the Administration does not have to use the injunction—and would better support the cause of free collective bargaining by refusing to use it.

• **Pattern**—In a pressure move akin to the stand on steel, convention delegates demonstrated solidarity behind the

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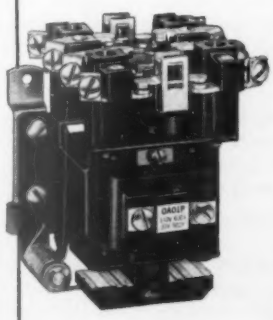

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Amalgamated Meat Cutters & Butcher Workmen and United Packinghouse Workers, on strike against Swift & Co. AFL-CIO voted to support a "Don't Buy Swift" campaign until the packer signs a "fair and equitable" agreement.

Generally, anger at the convention was directed at outside targets—employers, Republicans and Southern Democrats, visiting Soviet Premier Khrushchev (page 28)—instead of being vented on frictions within the federation.

Stylish Year Without a Style

With no fashion extremes to stir a revolt, retailers expect a big year. Imports grow, but gamut runs from classics to little girl look.

In the unaccountable world of fashion, it's not always big style news that makes a big year. According to Marjorie M. Reich, Fashion Administrator for Macy's-New York (and its branches), the selling season just started makes a good case for this point.

"No," she says, "there is no single dominant fashion this season. That's one reason why it looks like the best in many years."

This isn't as paradoxical as it sounds. Since there's no dominant look, women have a rich variety of choice—and a pretty good chance of finding something they like. A fad or style that takes over—as the chemise threatened to—always runs afoul of some stalwarts who don't like it, and, what's more, won't buy it.

This year, that is not likely to happen. And though some retailers have lamented the lack of any strong new trend, most seem pretty happy with the way things are going.

• **Skirt Length**—Paris itself was generous with its variety, though the press overplayed the to-do about the length of the skirt. "Regardless of the stir about the Dior short skirt," says swish Bergdorf, Goodman, "women are wearing skirts at about the length they wore them last year." There's no such thing, agrees fashion-conscious Ohrbach's, as a set rule that a skirt must be so many inches from the floor.

Lacking an important new silhouette, retailers seem a bit put to it to say just what customers are going for. "I'd say the clothes are very wearable this year," one big department store official says. "They are pretty. They don't go to extremes."

The one look that appears to be stealing some scenes, though by no means the whole show, is the so-called hobble-skirt—provided, one store qualifies, women can walk in it. Macy's feels that hobbleskirt is a misnomer. "We call them banded tunics," says Miss Reich, "and they are much easier to walk in than you would think."

Many summed up today's vogue as, in part, a strong revival of the "classic look." That means "understated clothes, well cut," one retailer explains. It is a conservative look; it's sweaters dyed to match skirts, its daytime simplicity, the knitted look.

• **Some Traces**—Dead though the chemise and the Empire looks are, they have left their mark. The loosely fitted coat dress, with a suggestion of a waist, recalls the chemise. And while the waist has returned to the waistline in most cases, there's nothing like what one store spokesman calls the "savage interest in the lines of the body" that preceded the free-flowing chemise and trapeze.

Along with the classic, a couple of big retailers stress what you might sum up as prettiness. Mary Lewis, director of the Fashion Board of Sears, Roebuck & Co., reports an emphasis on "the little girl look." It's strongest in the teenage set, but turns up at every age level. Often this takes a provincial turn—Tyrolean, Norwegian (the recent Rockefeller wedding helped that along). Another retailer balks at details. "They're just pretty coats, pretty skirts, pretty dresses," he snaps.

• **Just Plain Well Dressed**—The absence of a prevailing mode seems to presuppose a market of growing sophistication and taste, with a surer knowledge of what it needs, likes, and wants.

Sears' Miss Lewis believes the reversion to the classic is a direct reaction from the extremes of the chemise and of haute couture generally. The classic, she says, is for people who say, "We wash our hands of this silliness. We just want to be well dressed." Ohrbach's notes that fewer women buy a style because Mary Doakes is wearing it.

Yet, hand in hand with this growing independence is a trend that seems to contradict it: the growing impact of the great world fashion centers of France and Italy on the mass market. The great mass stores are stressing both the Paris original and the line-for-line copy as never before.

One might hazard an explanation such as this: The real fashion buffs are still with us—those who must always be avant garde, who expect to have a new wardrobe with each passing season. For them the "made in . . ." label counts. But these customers have been around for generations. Another group finds following fashion's dictates too trying, too costly to be practical.

The new market pressures come from the middle income groups, with more taste and more money to satisfy that taste than they have had. Possibly they find reassurance as to the rightness of their choice in a label, or a copy from a great couture name.

• **Suburban Angle**—Most retailers agree that the U.S. market is fashion conscious as never before. The casual look will never die because it is basic to suburban living. But many—though not all—feel that when today's suburbanite comes to dressing up, she wants to dress up. The cocktail dress and the dinner dress are especially strong this fall.

Even the casual look has smartened up. Pants are growing in favor, even for party wear, some report. But they are elegant pants, of velvet or brocade. And the slacks for around-the-house wear are trimmer, more tapered than the once-pervasive blue jean. "The beatnik look is kaput," says Miss Reich.

Once the casual look may have had the force of fashion—and the sloppier the casualness, the better. Now, says Sears' Miss Lewis, the casual lasts only because it is functional. It's simpler for the hurried housewife to slip into a pair of pants to get breakfast and rush the children off to school than to bother with the underpinning dresses require.

• **Men Only**—Meanwhile, what about the men? On one point, there's a striking similarity with what is happening in the women's fashion world. Leading merchants and manufacturers of men's wear agree that there are no substantial style changes this year.

A possible exception, one important merchant finds, is a return to the 1920s among the country club set. This shows up in the resurgence of the blue blazer, with brass—or maybe solid silver—buttons, worn with light or checked trousers.

On the much-discussed Continental look, some say they are adopting a couple of its features: a shorter suit coat, with rounded front.

• **Fabric's the Thing**—But all are unanimous that the big news for men is not in styling but in fabric: Indian Madras cotton sports jackets, Scottish tweeds not only for jackets but for suits as well.

Functionalism rears its head here, too. One important manufacturer is cutting top coats shorter to help men into and out of today's low cars. The continuing trend to lighter weight fabrics reflects today's well heated houses—and cars. And air conditioning means that a suit that works for spring and fall can be worn in the summer months, too.

If all this adds up to a contradictory picture, retailers aren't complaining. "In our field," says Macy's Miss Reich, "variety sells."

Record breaking Atlas missile billows flame and vapor as she launches 4¼-ton satellite into orbit. Constructed of Type 301 Nickel Stainless Steel, Atlas is built by Convair (Astronautics) Division of General Dynamics Corporation. *U.S. Air Force photo*

130 tons of missile with a skin thinner than a window pane!

The Nickel Stainless Steel skin of the Atlas missile is actually about one-third as thick as the glass in your window.

And yet look what this skin does:

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- It serves as the wall of the propellant tanks in Atlas' weight-saving design.
- It withstands the deep chill of liquid oxygen (−297°F) . . . the high heat of supersonic speed (400°F–600°F).

. . . And it is less than 1/25 of an inch thick!

No wonder they call stainless the space age metal. No wonder engineers turn more and more to Nickel Stainless Steel as temperatures rise . . . as speeds soar . . . as demands get more and more severe.

But Nickel Stainless Steel has many earthbound applications, too. Its strength and resistance to both corrosion and temperature extremes improves the performance and prolongs the life of many industrial products. And its attractive appearance provides still another reason for its popularity in products for the home.

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In Business

• • •

Zeckendorf Branching Out Anew: Plans To Process Steel From Copper Slag

Webb & Knapp's William Zeckendorf this week took off from his original real estate base in still another direction: the conversion into steel of the iron ore in waste copper slag.

Zeckendorf plans a $15-million integrated plant to convert W & K's 30-million-ton copper slag pile at Clarkdale, Ariz., into steel reinforcing rods, wire, nails, and fencing. **He will use the Strategic-Study direct reduction process** (BW—Sep.27'58,p172), which can make low-grade steel from powdered ore with as little as 25% iron content; the Clarkdale slag has about 33% iron.

W & K plans a second plant to convert a 40-million-ton copper slag pile of Anaconda's, in Montana.

Strategic Materials Corp. of Buffalo, owner of the process rights, will have a 15% interest in the Clarkdale plant.

• • •

Price Tags Cut on Big GE Transformers, Nylon, Rayon Tire Cord; GM Stays Put

General Electric Co. this week cut the prices of its giant power transformers in the 12,000-kw. to 250,000-kw. range. The cuts average about 5%, run up to 20% for the largest models.

Industrial Rayon Corp. answered the recent price cut in nylon tire cord by chipping about 6% off the price of the viscose fiber that it makes under the name of Tyrex with several other rayon producers. Then **du Pont**, which touched off this latest round in the nylon-rayon battle for the tire cord market, lowered its own "super cordura" rayon filament.

Prices on 1960 **General Motors** cars are mostly unchanged from the current models, though a few minor extras are now tucked into the price tag for free. Buick, Cadillac, and Oldsmobile prices are the same, Chevrolet and Pontiac have minor drops in the price to dealers.

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Douglas Hears Hints That Antitrusters May Seek Breakup of GM and U.S. Steel

Some strong indications of what the **Justice Dept.** plans to do in two major antitrust investigations—General Motors and U.S. Steel—appeared this week as Sen. Paul Douglas' Joint Economic Committee resumed hearings in its "study of employment, growth, and price levels."

When Douglas wondered whether it would be in the public interest to split GM into several companies, antitruster Robert A. Bicks said that **roughly 20% of the Antitrust Div.'s resources and manpower are "being devoted to the senator's speculations"** in the eight-month-old grand jury probe of the auto giant.

On U.S. Steel, Douglas asked if Justice was doing anything about Sen. Kefauver's suggestion that it, too, might be broken up. Bicks replied:

• The six-month-old grand jury probe is being pressed into possible coercion and price fixing on structural steel by major West Coast producers.

• Two of his top staffers are "beyond the preliminary stages" of a study of what the government should do on the broader problem of pricing in the entire steel industry. Kefauver had suggested antitrust action against U.S. Steel's price leadership.

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ARPA's Role in Space Program Cut

The Advanced Research Projects Agency, the emergency setup with which the Defense Dept. tried to pull together all rocket and missiles projects after the Sputnik alarm, has sloughed off one more activity.

Some time ago, ARPA turned over all purely scientific space projects to the National Aeronautics & Space Administration. **Now it is dropping out of the military part of the space program.** In the reshuffle:

• The Air Force takes control of developing early-warning and reconnaissance satellites and rockets for pushing any military satellites.

• The Navy gets control of developing navigational satellites.

• To the Army goes control of satellite-borne communications.

All that remains in ARPA control is a miscellany of weapons research outside the areas taken over by the services.

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Business Briefs

Rolls Royce, traditionally chary of major changes, is switching from six- to eight-cylinder engines in both the Rolls and the almost-identical Bentley. The new engine, of aluminum, will weigh the same as the old one but deliver more power.

The 3¢-per-lb. price cut on some linear polyethylenes by **Phillips Chemical Co.,** a Phillips Petroleum Subsidiary (BW—Sep.19'59,p42), brings the price to 35¢ per lb. from the former 38¢.

Stockholders have overwhelmingly approved the merger of the **Erie RR** and the **Delaware, Lackawanna & Western.** The deal still needs ICC approval; dissident Lackawanna holders say they will oppose the merger at the hearings.

After three years of wrangling, the **Internal Revenue Service** last week finally published its proposed ruling that electric utilities cannot deduct the cost of anti-public power advertising as a business expense. The rule won't take effect until after a 30-day period for filing of comments and complaints—which the industry is busily preparing.

RCA'S FIRST NAME IS "RADIO"

The Sales Manager Looks at RCA 2-Way Radio and Sees CUSTOMERS

When the Sales Manager looks at radio he sees much more than the handy equipment with which to keep in touch with driver-salesmen on the highways and byways. He sees his customers highly enthusiastic over the wonderful service they are now getting . . . new business resulting from the "edge" radio gives him over competition . . . more time for more sales calls—thanks to increased efficiency on the job.

To get the most effective results from 2-way radio communications, you'll want top performance and dependability in equipment and service. RCA offers just that: 2-way radio systems designed to give you *highest reliability* with built-in *reserve power* for extra long life. RCA *manufactures, installs* and *services* mobile radio equipment, provides *advanced engineering* that only the leader in radio and electronics can offer.

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Communications Division, Dept. YD-26, Building 15-1, Camden, N. J.

☐ Please send me FREE literature on RCA 2-Way Radio and its applications in my business.

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You're not playing for peanuts . . .

the *right* new plant location may reduce overhead 10% . . . or more!

When you're seeking a new plant site, you're not playing for peanuts. A leading business publication says, "Choosing a location for a new company plant is one of the most crucial decisions facing top management today. Made intelligently, it may cut production and distribution costs 10 per cent or more . . ."

Primary factors in reducing costs are labor stability and community attitudes. In the six progressive states served by the Norfolk and Western, manpower is home-rooted and dependable. Communities are friendly and forward-looking . . . offer pleasant living for personnel.

Here, too, are vast deposits of top-quality Bituminous Coal and limestone — abundant water — ample electric power — substantial quantities of manganese, silica, clays and other natural resources. You'll be near the big markets of the East, South and Midwest. You can reach overseas markets through the Port of Norfolk on famed Hampton Roads, and you'll be efficiently served by the Norfolk and Western's Precision Transportation.

Cut production and distribution costs with the right plant location. Give us your new plant requirements, in strict confidence.

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WASHINGTON OUTLOOK

WASHINGTON BUREAU
SEPT. 26, 1959

Washington's priority for dealing with East-West issues is unchanged by anything that has happened on Soviet Premier Khrushchev's tour. This is the central fact as the visit ends. It bears repeating because sometimes in the past couple of weeks it has been obscured by public preoccupation with such questions as what the Russian thought about hot dogs, supermarkets, or the security arrangements for his personal safety (page 28).

Easing of the Berlin crisis, a bomb test ban, some possible trade concessions—these are the top priority items in the talks at Camp David as before. If they sound modest by comparison with grandiose schemes for disarmament, there is a reason.

Washington still waits for signs of Soviet flexibility.

No one expects any dramatic overnight change. Khrushchev's public behavior has produced neither new pessimism nor new optimism in the Capitol. Officials at the topmost government levels say it simply is too early to tell whether the Eisenhower-Khrushchev efforts will—at some distant point—lead to some change in the facts of international life.

Some observations on Khrushchev's cross-country travels from those who were close to him throughout:

The Russian Premier is a fairly good actor. The consensus among the small army of correspondents who followed his every public move is that Khrushchev keeps his emotions under control—when he wants to.

His celebrated temper tantrums are viewed as deliberate.

One motive seen: to deflate Henry Cabot Lodge, his official U. S. escort, who has been assigned to the delicate task of constantly correcting Khrushchev's distortion of fact. In the early part of the tour, Lodge gave every outward appearance of a man running for public office; in fact, he was mentioned as a Vice-Presidential candidate for 1960. By the end, circumstances had shifted so much that Lodge lost prestige on the trip.

Another: to project a more amiable image here, in Russia, and elsewhere in the world. Khrushchev did this by forcing relaxation of the strict security arrangements. Once this was accomplished, there came immediately the performance—well-photographed and obviously much-desired from the Russian's viewpoint—of Khrushchev mingling with the public and even kissing babies.

Khrushchev and Russia have become U. S. political factors for 1960.

The Eisenhower attempt to assure peace improves Republican prospects. This trend will continue, unless the Khrushchev-Eisenhower talks and exchange of visits break down with dire result.

Vice-Pres. Nixon, who came off well with Khrushchev in Russia, stands to gain enormously in personal prestige so long as the atmosphere does not turn completely sour.

As of now, Nixon's admirers say his performance shines brighter than before. They reason that the American people, through their exposure to him at close range, will realize how tough and shrewd a foe Khrushchev really is. And this, they figure, will put new luster on the Vice-President's encounters with the Russian leader during the past summer.

Most politicians were deliberately cool to Khrushchev.

WASHINGTON BUREAU
SEPT. 26, 1959

California's Gov. Brown was the standout exception. Insiders in the traveling party say the Democratic governor tried, through Soviet Ambassador Menshikov, to arrange a private meeting with Khrushchev in San Francisco. He was informed the schedule was too tight.

New York's Gov. Rockefeller, Nixon's opponent for the Republican Presidential nomination, got a half-joking invitation from Khrushchev to visit Russia during the coming year. Rockefeller dismissed it, assuring the Russian matter-of-factly that he is entirely too busy running the affairs of New York State.

—•—

Discount talk about a nationwide slowdown by organized labor as a show of sympathy for the Steelworkers union. Broad backing of the strikers will be important (page 34)—but in financial and political terms, not through any sympathy strike.

The idea was a trial balloon that never got off the ground. Emil Mazey, secretary-treasurer of the United Auto Workers, proposed it at the AFL-CIO's national convention in San Francisco. The proposal was received frigidly by most union officials. Not even the steel union is interested. Odds would be heavy that any such effort would fail. Even if it succeeded, a concerted all-industry slowdown would only push the labor movement into deeper trouble with the public and Congress.

Big labor expects the Administration to use Taft-Hartley in steel.

This causes new bitterness, against Labor Secy. Mitchell. Most of the AFL-CIO command had counted on Mitchell, long before now, to persuade Eisenhower to intervene directly to force a settlement.

The White House remains adamant against overt interference—**any move that Eisenhower considers as siding with either the union or steel companies. There is official reluctance to invoke Taft-Hartley.** Eventually, big labor's suspicion that the act will be used may turn out to be correct. But there is no sign that the time is close at hand.

Mitchell's new warning this week was not a strong one. He merely reminded the steel disputants that collective bargaining is on trial and again urged some hard negotiations. Mitchell's close associates say he feels the supply situation is only now beginning to pinch, won't really get tough until well into October, and won't cripple the general economy for another couple of months. The feeling is that Mitchell is counseling the President that there is hope for settlement in the interim—through outside pressures on the companies as their customers begin to be hurt by disappearing steel supplies.

—•—

The budget makers' aim for fiscal 1961: spending under $80-billion. That is the Eisenhower goal as work progresses on the budget that the Administration will present to Congress next January for the fiscal year that begins on July 1.

The new budget probably will be a little more comfortable, but no big surplus is being counted on. The hope is that the surplus will be quite a bit larger than this year's estimated $100-million, the newest official estimate (page 27). As such things go, that's a narrow margin and it could be erased before the fiscal year's end.

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CYANAMID-LAND:

where chemistry's magic makes more than 6000 products for you—products that serve you every day, at home, on farms, in industry and medicine.

CEVRAL® vitamin-mineral capsules: Sound addition to your family's nutrition. A product of Cyanamid's Lederle Laboratories, where more than $11 million in medical research is spent each year finding new ways to fight sickness and disease. CYANAMID

FORMICA® wall tile: Brightest way to keep your bathrooms beautiful. New easier-to-wash Formica wall tile resists the ravages of time and tots, gives lustrous long-life to modern colors. CYANAMID

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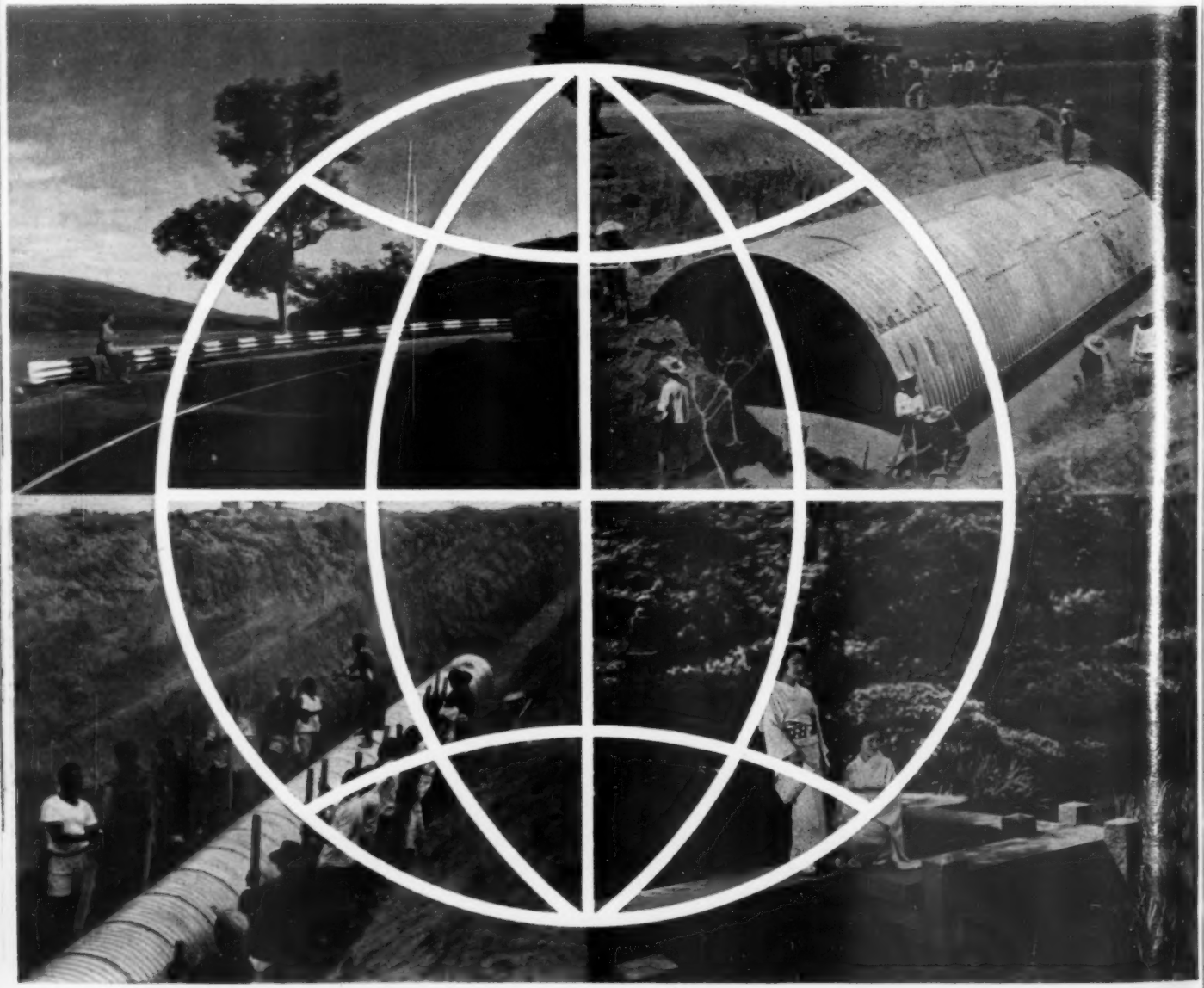
New steels are born at Armco

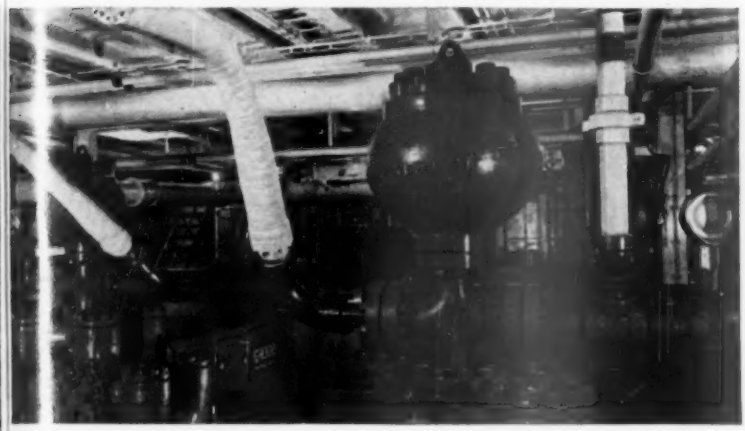


ARMCO AROUND THE WORLD

The "rhythm tampers" of the Belgian Congo compact earth around a big Armco drainpipe. In Tokyo two Armco secretaries in traditional dress stroll in a garden after office hours. A work gang in Mexico installs a huge Armco MULTI-PLATE® bridge structure. On the shores of Scotland's Loch Lomond, Armco FLEX-BEAM® Guardrail protects motoring tourists. Every hour of the day around the world, the plants, warehouses and technical missions of **The Armco International Corporation** are helping free people build a better life with Armco steels and steel products.

A RUGGED "HEART" FOR ARTERIES OF AN OIL WELL

In drilling an oil well this large pump, manufactured by **The National Supply Company,** circulates fluid through the drill pipe to the drilling bit. It provides a means of removing the bit cuttings from the bottom of the well. This Armco subsidiary manufactures and sells thousands of products for use in domestic oil fields and 57 foreign countries.

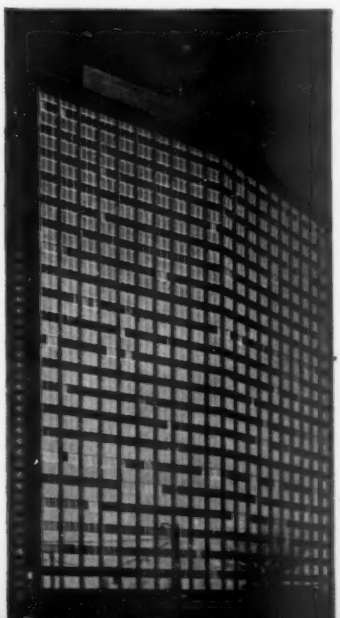


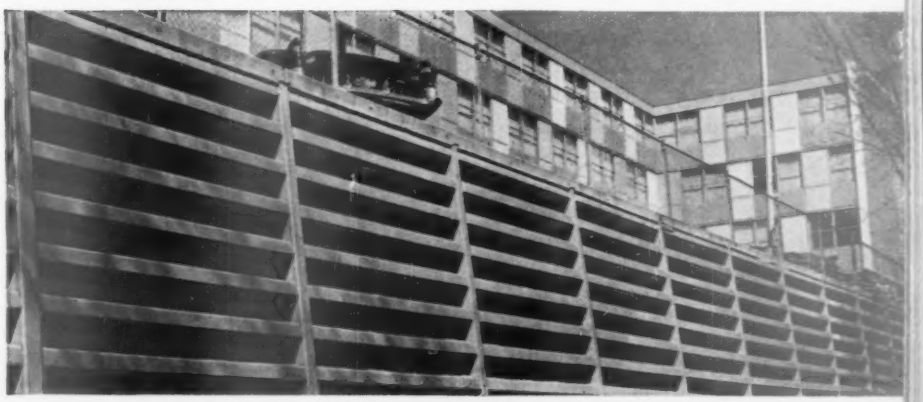
STEEL BACKBONE FOR BETTER ROADS

This new superhighway cutting across the Kansas plain will stand up under brutal pounding. Special welded wire fabric made by Armco's **Sheffield Division** gives the poured concrete extraordinary strength and durability. It's helping speed America's vast highway construction program.

SKYSCRAPER CLAD IN LASTING COLOR

For decades to come its soft, gray-blue curtain walls will look exactly as they do today. They are made of hard, glass-like porcelain enamel fused on special Armco Enameling Iron. From the **Armco Division** come scores of new and improved steels to do the increasingly difficult jobs demanded by technical advances in all industries.





THIS RETAINING WALL USES EARTH TO ANCHOR EARTH

You see only the outside face of this bin-type retaining wall developed and manufactured by **Armco Drainage & Metal Products, Inc.** It's actually a series of connecting steel bins laid into the face of the bank and backfilled with earth to form a retaining wall that will not crack or overturn. It is one of more than 30 construction products made by this Armco subsidiary.

* * *

Shown here are only a few examples of how Armco's divisions and subsidiaries serve you with new steels and steel products. From its 43,000 men and women, in 94 plants around the world, comes a growing stream of advances in products and production techniques made possible by continuous research. Armco Steel Corporation, General Offices, Middletown, Ohio.

ARMCO STEEL

Armco Division • Sheffield Division • The National Supply Company • Armco Drainage & Metal Products, Inc. • The Armco International Corporation • Union Wire Rope Corporation

Glamor—where "the rub comes"—for Eastern's new Jet-Powered Electras

Interiors of originality and beauty . . . with a freshness that stays fresh, trip after trip!

That's the keynote of Eastern Air Lines' new Jet-Powered Golden Falcon Electras. That's the reason, too, for metallized plastic panels*—made from Kodapak Sheet at wear points: top and base rails, valances, and other vulnerable areas.

Why Kodapak Sheet? Tough and transparent Kodapak provides a stable base to which a thin film of metallized material can be laminated economically. Finally, to guard the sparkle, the metallic film itself is protected by a second ply of clear, abrasion-resistant Kodapak Sheet.

What does this mean? Much, if you are an interior decorator or a manufacturer. For Kodapak Sheet offers exciting new possibilities in décor and surface protection. Call our representative, or write.

*Produced by High Vacuum Metals, Inc., New York, N. Y.

Kodapak Sheet

"Kodapak" is a trademark for Eastman's plastic sheet.

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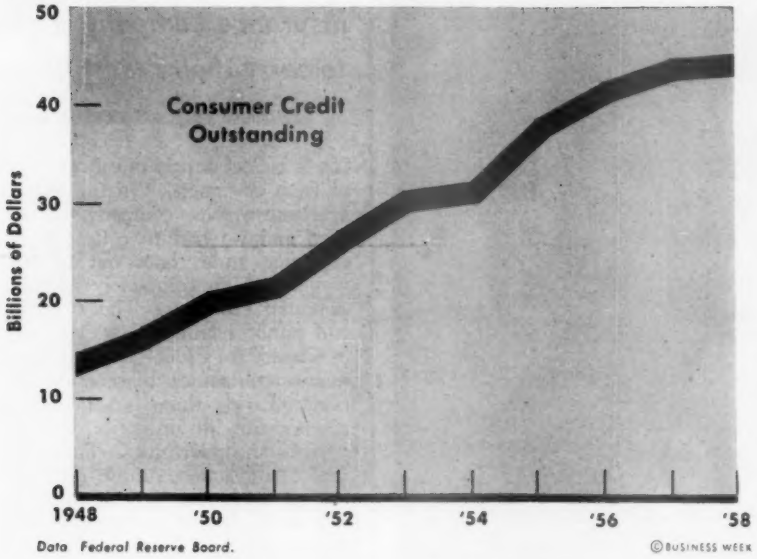
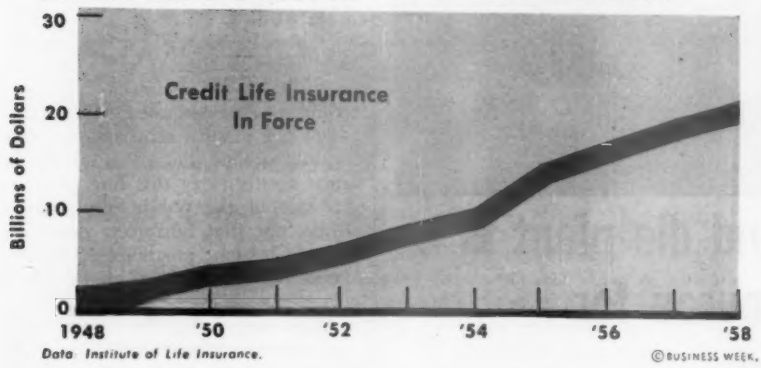
The boom in consumer credit . . .



. . . Breeds a boom in credit life insurance



States Ready New Rules

Credit life insurance—which guarantees repayment of a loan if the borrower dies—has been tremendously successful, but the success has sometimes been accompanied by alleged abuses that state governments are now trying to correct.

State insurance commissioners in Pennsylvania, New Jersey, New York, and half a dozen more states across the nation this week are wrestling with a tough problem: How to bring booming credit life insurance under control.

A credit life insurance policy assures a borrower that if he should die while still owing money on a loan, the insurance company will pay off the balance due. These policies cover all sorts of consumer debt, including installment contracts, and department store charge accounts. They are also spreading to home mortgages.

As the chart shows, credit life insurance—not including mortgage insurance—has enjoyed a phenomenal postwar growth. As recently as 1939, only $300-million in installment debt was covered by insurance. Today credit life in force amounts to more than $21.5-billion, equal to about 45% of total consumer credit oustanding.

The expansion in credit life insurance has been closely tied to the growth of consumer credit, though when credit life policies were first sold in 1917, the basic motivation was the lender's desire to get his money back. In fact, long before credit life policies were sold as such, lenders required borrowers to carry insurance. But, since the war, insurance and finance companies have discovered that selling credit life is highly profitable. This has been what has provided much of the push behind the postwar growth in the field.

• **Targets**—The drive to regulate credit insurance is aimed, says Pennsylvania Insurance Commissioner Francis R. Smith, at a relatively small group of "captive" insurance companies—owned by finance companies. Smith claims there have been cases of "gouging" of borrowers and annual profits as high as 2,800%. Smith is working hard to push through legislation—based on a model bill approved by the National Assn. of Insurance Commissioners—that will bring credit life companies under control (BW—Aug.15'59,p75).

One version or another of the NAIC model bill has been passed in 22 states. And state insurance commissioners in New York and New Jersey have set up "benchmark" rate schedules that attempt to define what's considered "reasonable" in the way of credit life insurance rates. Other states are expected to follow with similar rate regulation.

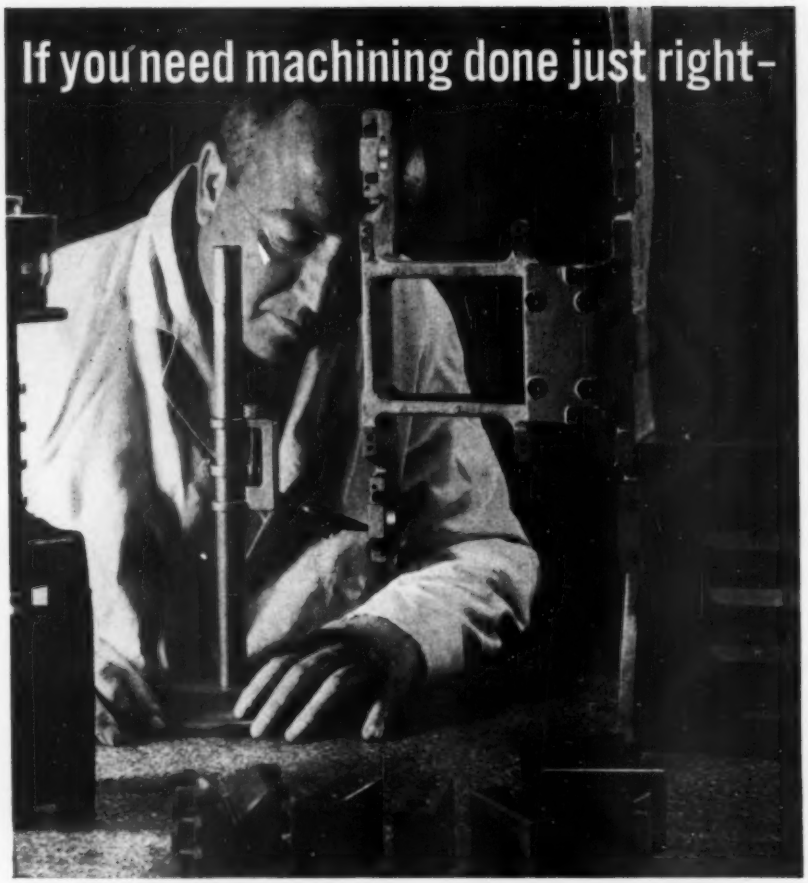
• **Giants in the Field**—Credit life insurance, of course, isn't written only by the "captive" finance company subsidiaries. Most of the nation's largest insurance companies are in the field. The Prudential Insurance Co., the nation's second largest, is far out in front with about 25% of the total market. It has more than $5-billion of credit life in force, including what the Pru claims is the world's largest single life insurance contract—a $3-billion-plus group policy made out to General Motors Acceptance Corp.

A few of the nation's largest sales and consumer finance companies—and most of the banks that are big consumer lenders—follow GMAC's policy of providing credit life insurance virtually at cost as a service to borrowers. For GMAC customers—who get the lowest possible rate because of the vast size of the contract—this comes as an annual charge of 32½¢ for each $100 of debt. Rates from other companies, however, can run as high as $2 per hundred per year.

GMAC and big lenders such as Household Finance Corp. have pioneered low cost—or no cost—credit life insurance for two reasons:

• It's socially desirable to protect a borrower's family from having to pay off a load of debt with an estate that may be scarcely adequate to cover funeral costs.

• It's a difficult and messy job try-



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". . . in practice, borrowers don't get to choose which insurance company is going to carry their credit life . . ."

(STORY on page 47)

ing to collect unpaid bills from a widow, or from co-signers. "In the old days," says one finance company, "if a man died and we had to collect from the co-signer, nine times out of ten we would end up completely alienating a potential customer. That's just plain bad public relations."

• **Chance for Profit**—Some of the other finance companies, however, while certainly sharing these broad convictions about credit life insurance, have seized on it as an opportunity. They have established insurance subsidiaries and have charged high rates for the coverage. A few small finance companies, in fact, have used credit life sales as a device to boost their gross returns over legally allowable maximums. Here's how they have worked:

Virtually all credit life insurance is sold through the "agency" of someone outside the life insurance business. According to the circumstances, it may be a bank, a finance company, or an automobile dealer. Few, if any, life insurance agents carry this line of coverage for sale to the public. In practice, it works out that borrowers don't get to choose which insurance company is going to carry their credit life coverage.

This means that the "agent"—who is entitled to a sales commission that can run as high as 40% of the premium—has a strong incentive to keep credit life rates high, especially if the profits are accruing to a wholly owned insurance subsidiary.

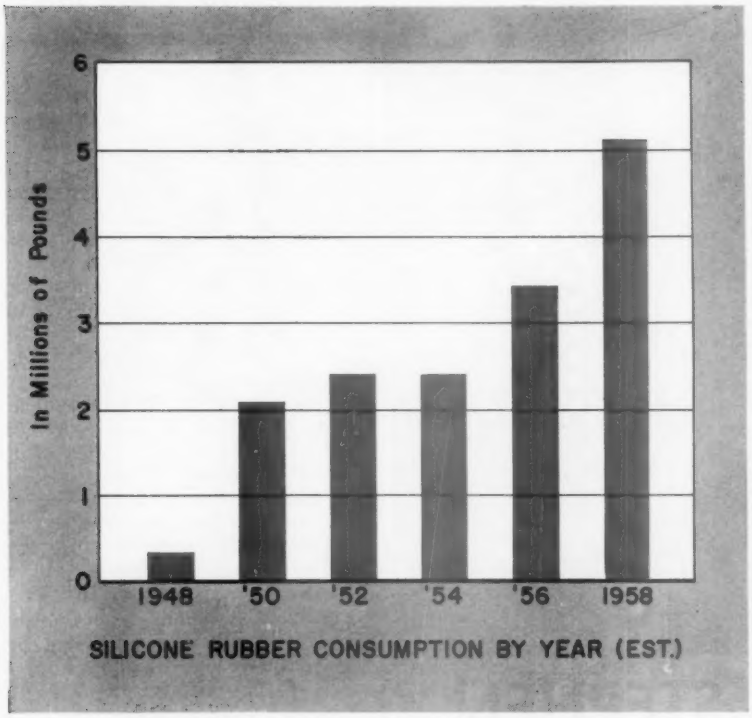
Moreover, many of the "specialty" companies that don't sell anything but credit life have adopted a practice of selling the insurance on a nominally "individual" basis, rather than under the master group contracts employed by the big, old-line companies such as Prudential. The "individual" policies have been used to justify rates higher than those under the group contracts—rates that many insurance men say aren't warranted by higher sales or servicing expenses.

• **Subsidiaries**—You can get an idea of how fast credit life insurance is growing and how profitable it can be by looking at two companies that concentrate in this field—Alinco Life Insurance Co., owned by Associates Investment Co., and Patriot Life Insurance Co., owned by C.I.T. Financial Corp.

Alinco, formed in 1953, is essentially a reinsurer of credit life policies. It does

SILICONE NEWS from Dow Corning

When Rubber Is Cheap At $3/lb.



The cost of a material is not always what it seems.

To find the *real* price of an item, you have to somehow relate its cost to how well it does the job. For example: razor blades. They're cheap. A dollar's worth will shave you for a month. Yet a *pound* of blades would cost over 30 dollars. But again, no other material will do the job . . . unless you "design around it". Which in this case might mean growing a beard or using an electric. And the electric requires a power source. In other words, you can't equate price-per-pound with performance. You can think of dozens of other examples of this in your own plant: how much do you pay per pound for pencils, typewriter ribbon, cellophane tape, rubber bands?

The mention of rubber brings us to the point. Dow Corning produces a premium synthetic rubber that appears, on a dollars-per-pound basis, expensive. It's Silastic®, the Dow Corning silicone rubber, and it sells for $3.00 a pound and up. *Yet* — and this is a big *yet* — this is really cheap when you consider that Silastic is so often the only material that will do the job right.

Parts made from Silastic, because they possess superior properties, have a superior life expectancy in operation. What are these properties? Resistance to virtually all the factors that normally cause rubber parts to fail: heat, cold, ozone, weathering, corona, oxidation, many chemicals, aging and other rough conditions. But in spite of all these virtues, which result in more reliable performance, parts of Silastic, on a *piece* price basis, are really surprisingly inexpensive.

Here's an example of how little a Silastic part costs per unit. A supplier to the transportation industries is producing a hydraulic fluid seal of Silastic. It must resist hot solvent-type fluids, therefore it's made of one of our highest priced materials: fluorocarbon silicone rubber. Yet this seal, shaped and sized something like a bottle top, sells for about a dime. A dime! Same price you pay for two razor blades, or a few rubber bands . . . and *nothing else would do the job.*

Now consider this. If you were told that Silastic stays rubbery from —130 to over 500 F, you'd probably shrug and say "So what?" . . . your product may only encounter 225 F. Now, let's say your design engineers, trying to keep costs down, go along with a rubber that's good to 230 F. You're buying marginal reliability. If it only has to take that temperature on rare occasion, you're safe. But if those occasions multiply a little, you'd be better off with a better piece of rubber . . . Silastic . . . because it can take this temperature indefinitely. It's cheaper in the end.

So you're way ahead if your engineers design *through* a problem with Silastic, rather than designing *around* it with "cheaper" materials. There are countless areas in present products where the use of any other rubber would be unrealistic. The graph shows how many people have discovered this. Who would use conventional rubber for the moisture seal in a steam iron? . . . Too hot! Or for the oil-seal in the latest automatic transmission . . . Too hot and oily! Or for ducts carrying liquefied gas vapors . . .Too cold! Or for seals between missile sections . . . Too everything! And these are only severe illustrations. It's that borderline application that you must watch, because it's so easy to look the other way and hope, when certainty is really much less costly.

One more reminder: though all Silastic is silicone rubber, not all silicone rubber is Silastic. Dow Corning . . . and Dow Corning customers, we assume . . . fully believe that Silastic is the finest material of its kind to be found anywhere.

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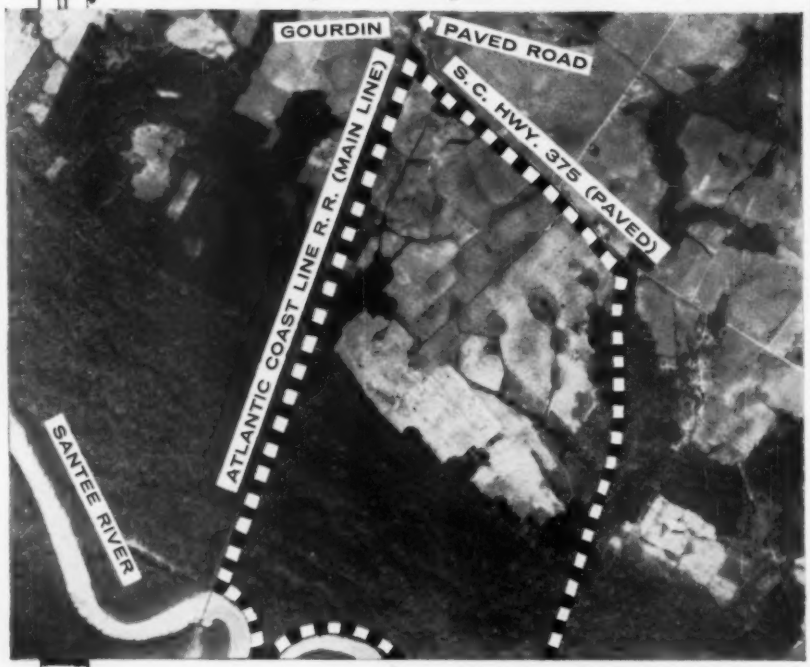

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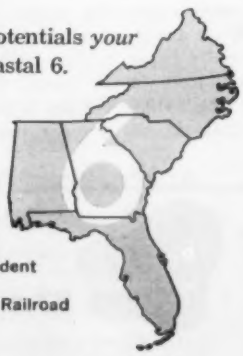

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". . . the simple fact of regulation, according to most insurance men, is long overdue for credit life . . ."

(STORY on page 47)

not sell to the public but reinsures credit life written by other companies. This way, it only has to be licensed in one state.

At the end of its first year of operation, Alinco had a capital surplus of about $700,000. But by the end of 1958, the boom in credit life policies had boosted its capital surplus to $13.5-million; in addition, $9-million in dividends had been paid out.

Patriot Life, on the other hand, has a mix of policies. It is primarily a credit-life insurer, but it also writes other life lines, as well as accident and health. Patriot also started in 1953, and it has moved as quickly as Alinco. It ended its first year with a capital surplus of $3.5-million. Last year, this figure stood at $29.9-million, and in 1958 alone, $10-million in cash dividends were paid out.

• **Senate Testimony**—The onrush of credit life policies has brought broad repercussions. For example, Ford Motor Co.'s financial vice-president, T. O. Yntema, testified before the Senate committee probing Ford's entry into the finance company field that one reason Ford wants to make the move is to cut down the cost to Ford car buyers of credit life insurance—Yntema said that C.I.T.—which finances more Ford cars than any other company—charges $1 a year per 100 of debt compared to the 32½¢ rate GMAC customers get from Prudential.

C.I.T. officials deny that their rates are too high. They say their insurance coverage is broader than that offered GMAC; it includes special accident and sickness and other provisions lacking from the basic GMAC policy, they contend.

• **Rate Regulation**—What concerns the life insurance industry in all the fuss about credit life insurance is not the trend to regulation. Traditionally, life insurance has been a closely regulated industry, though up to 1957—when the NAIC drafted its model bill—there was practically no control over credit life. The simple fact of regulation, according to most insurance men, is long overdue for credit life.

But in the drive to regulate the industry, insurance commissioners in one state after another—New York and New Jersey were the first—are publishing regulations calling for "benchmark" or "yardstick" rates for credit life insurance. The commissioners are saying,

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...g dyes ...rbon ...pou... ...in to t... ...ng; ...er ... ...s or ...es ... ...o car- ...in ... ...oms or ...d ... ...another ...positions ...ieta (m). ...tions. ...m. A base, ...stallizing in ...making dyes. ... inflammable ...ing, painting, ...a motor fuel. ...f benzoic acid. ...enzoate. ... obtained from ... (benzoic acid, ...s, etc., used as ...d preservative. ...er also *benjoin*, ... incense of Jawa ...om a tree of the ...va. It is used in ...s a perfume. ...nall genus (*Ben...ewood, or benja...*und, $C_{14}H_{12}O_2$, ...zaldehyde. ... hydrocarbon ob...nzene and similar ...dely used in dyes. ...*benol*+-*one*.] A ... chiefly by the dis...ium benzoate. ...dical, C_6H_5CO, of ...d is the hydroxide. ...e univalent radical ...ne is the hydride. ...r hero of an Anglo...om the 8th century. ...with paint; to tinge. ...ty, bequeath, fr. *be*... —now more appro... To hand down; to ...queath'al (-əl), *n.* ...t. fr. *biquide*, fr. *be*... ...of bequeathing, also, ... left by will. ... See SCOLD. ...li; the ...ca west ...ble. — Be... ...genus nati... ...alline alkalo... ...amperiodic ...uttaby; ...suz ...ilar soot... ... Var. of BEA... FT' (-reft'); REAV... make destitute; — with ...n the past tense or past ...aterial objects; as, *be*...ative; *bereft* of hope. 2. ...ay. — **be·reave'ment**, *n.* ...nisēz). Coma Berenices. ...fr. Pr. *berret*, fr. L. See ...naterial, originally worn ...by Basque peasants. ...t for ICEBERG. 2. (*pron.*

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". . . most life insurance men expect the field will grow at least as rapidly as it has in the past . . ."

(STORY on page 47)

in effect, that if a company wants to charge more than the rate scales they are setting up, it must prove the higher rates are justified.

Even the old-line companies such as the Prudential, which are already selling credit life for less than the proposed scales, are disturbed. This is the first time, says the Pru's director of group creditors' insurance, Andrew M. Rollins, that life insurance rates per se have been regulated. Traditionally, rate regulation has been confined to the fire and casualty fields. The Pru, though it views the trend to regulation of credit life rates as "unfortunate," wholeheartedly supports the controls as "the only way to bring some sanity into this field."

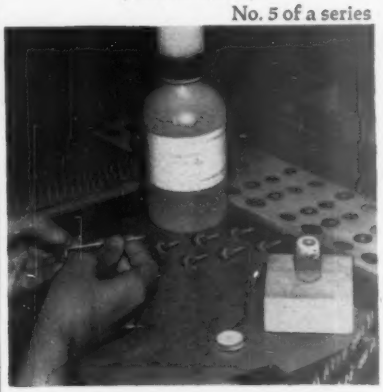
• **Recourse in Court**—As might be expected, these moves to set rates have evoked fierce opposition from some of the specialty credit life companies. In New York, where an annual charge of 44¢ per $100 is specified as a key base rate, the action of the State Insurance Dept. has been challenged in the courts. The case has been tried, and a decision is expected shortly.

In addition to the controversial rate regulation, the most important provisions of the NAIC model bill force the credit life companies to give their customers a full breakdown of what insurance protection they are buying and what costs are involved. Further, companies are prohibited from selling "excessive" amounts of insurance; in general, they aren't allowed to sell any more insurance than the face amount of the loan or installment sales contract. And they're required, when a loan is paid off in full in advance of the due date, to refund a pro-rata share of the premium.

• **Predicted Growth**—While these controls are expected to stamp out abuses in credit life insurance, most life insurance men expect that the field will continue to grow at least as rapidly as it has in the past. Says the Institute of Life Insurance: "Credit life insurance is expanding both horizontally and vertically. Horizontally, it's taking in new credit fields all the time; department stores, for example, are starting to insure the charge customers, which is something that had never been tried before. Vertically, there's the continuing boom in consumer credit—so long as that keeps up, credit life insurance is bound to grow." **END**

(Advertisement)

No. 5 of a series



Eastman 910 Adhesive solves another production bottleneck

Electro-Voice, Inc., of Buchanan, Michigan, manufactures miniaturized phonograph cartridges, called "Power-Point," for high-fidelity audio systems.

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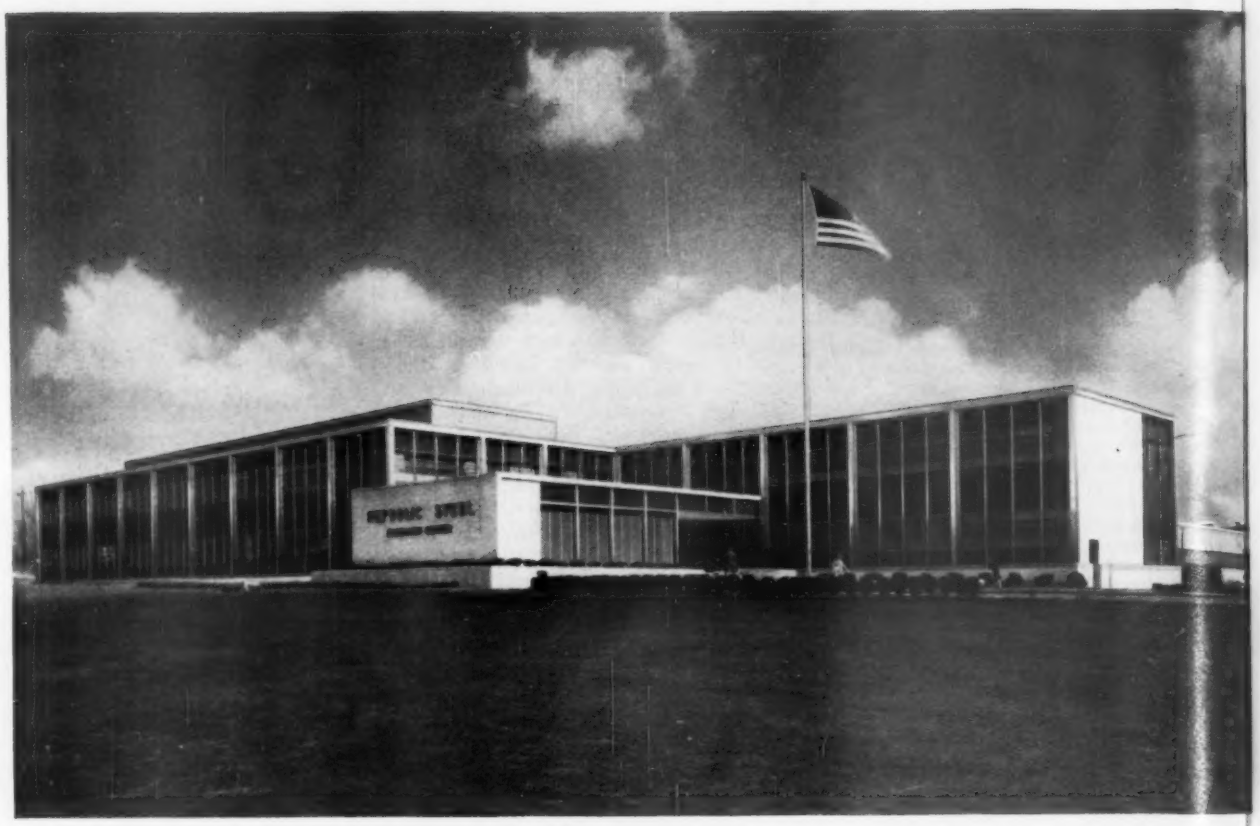


LEADING THE WAY INTO THE FUTURE OF STEEL AT REPUBLIC STEEL'S NEW RESEARCH CENTER

In a building that is a living example of the beauty and versatility of steel, Republic is taking giant steps in its efforts to reduce the unknowns in steelmaking. The new Republic Research Center at Independence, Ohio, a suburb of Cleveland, is a coordinating hub for the company's many research laboratories scattered through its plants. It supplements Republic's local efforts and cooperates when plant laboratories need additional work beyond the scope of their equipment.

The building itself demonstrates, in a single gleaming unit, current uses of steel and new applications which will undoubtedly become commonplace in the future.

The walls are Truscon's Vision-Vent® with textured stainless steel panels. The panels are coated with blue porcelain enamel which is burnished to reveal a pattern of stainless stars. The panels are separated by strips of bright stainless.

Inside the building are such practical applications of steel as movable interior walls; prefabricated flush doors; desks, counters, drawing tables of colorful plastic laminated to steel and ingeniously combining drawers from Republic's Steel Kitchens and office files.

The front building contains administration and laboratory facilities. The rear building is a 420 by 160 foot development area. This is occupied by pilot- and laboratory-sized equipment capable of turning crude ore or scrap into finished bars and sheets of tomorrow's still unavailable steels.

HEADED BY INTERNATIONALLY FAMED METALLURGIST, EARLE C. SMITH

Director of the Research Center is Earle C. Smith, shown at the left with Peter Robertson, Republic Steel's vice president in charge of research and planning. Dr. Smith is one of the few Americans to be nominated by the Verein Deutscher Eisenhüttenleute to AUSWÄRTIGEN MITGLIED EHRENHALBER.

Dr. Smith hopes to reduce substantially the number of unknowns in steelmaking, of which there are still many. His dream is shared by Irving Whitehouse, the Center's assistant director. Whitehouse is dedicated to changing steelmaking from an art to a science. "The day will come before too long," he says, "when the individual steel artist who still adds this-and-that by experience, will give way to scientists who will duplicate perfection by the ton."

New research lab opens up on a 30-30-30-10 formula

The new Research Center, dedicated officially this June, divides its budget: 30% for development projects expected to bear fruit in one to three years; 30% for exploratory projects expected to pay off in about five years; 30% for the ten-year type of experiment; 10% for pure science, work with no currently apparent application.

This rare 10% is the most highly prized by many knowledgeable people. Republic foresees that this 10% may well be increased under its aggressive programming.

THE FIRST 30

Among the projects in the first 30% is the search for a coating for steels to be used in the underbody of automobiles. Current work includes testing of metallic and non-metallic coatings which can be applied to steel sheets, before fabrication by the auto makers. This would give the auto industry a better product.

A project with extensive social benefits is under way to make industrial areas better living places, by developing waste control. Closer to home is the development of a prefabricated storage wall for residences. The wall can be made up of any combination of drawers, shelves, and cupboards, accessible from either side according to the customer's wish.

THE SECOND 30

Projects with a five-year maturity rating begin to take on a more eerie aspect. By the use of minutely precise equipment, Republic has graphed the expansion of steel while it is being heated, and found the critical points at which it stops expanding and begins to shrink. Then expands again. Republic is now applying a Hot Stage Microscope (rare in the steel industry) to learn why these changes occur. Through this microscope, shown at right, the changing in the hot crystal structure can be watched. Knowledge gained may be of use in application of metals in outer space. It may also lead eventually to production of better iron powder.

Supra-microscopic inspection of minute parts falls into the five-year class, too. Radioactive tracers will be used to measure wear on such small parts as the balls, not larger than a speck of dust, which go into tiny ball bearings. This could be the solution of measuring the wear of, or helping to produce, the Lilliputian parts in satellites —which will last as close to forever as man is permitted to achieve.

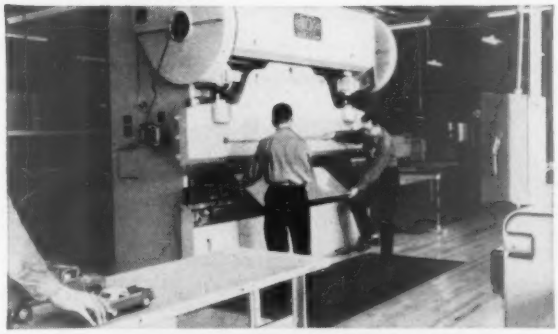
THE THIRD 30

Here long range planning at present is devoted largely to improving processes to make available materials not now usable. Direct reduction of ore, without melting, is already developing synthetic scrap, and potentially could be important in the iron powder field.

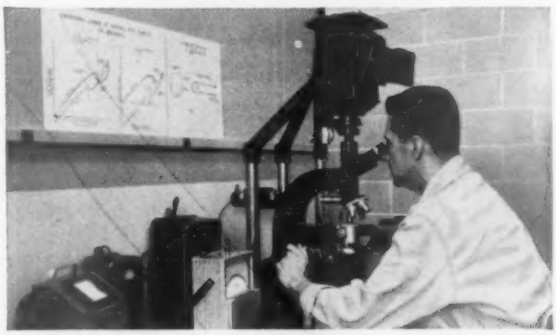
The grinding and dressing of ores goes on continuously to determine the best means of upgrading and agglomerating the great variety of ores from Republic's many sources—Labrador, Liberia, the Adirondacks, the southern ferruginous sandstone areas, and the extensive Lake Superior region.

THE BLUE SKY

An inkling of the type of work in the dream world of research comes from some of Republic's "way-out" equipment. Coming into the Center is a Plasma Jet, representing the latest stage in the evolution of an industry which started when primitive man first used a mud furnace to obtain crude metal from ore heated to around 2000°F. This is not much hotter than your backyard charcoal barbecue pit. A blast furnace produces about 3000°F. For 100 years or so, steel furnaces have reached above 3000°F. Oxyacetylene welding heat goes as high as 7000°F. And now comes the Plasma Jet, a practical working tool that can produce 30,000°F—hotter than anything most of us have ever seen except the sun and stars. Applications, again, point to the Outer Space Age.



Testing the adherence of a non-metallic coating on a steel sheet. Here the press brake machine is being used to determine how sharp a bend can be applied to coated steel which someday may qualify as a protected underbody of your future car.



The Hot Stage Microscope is equipped with a furnace under the lens. Here the observer can watch metal crystals change structure as they pass through different temperatures.

This laboratory-sized vacuum melting furnace—which looks like a hybrid between Sputnik and a pressure cooker—produces high temperature alloys in hand-sized ingots. Here steels of the future are being born.

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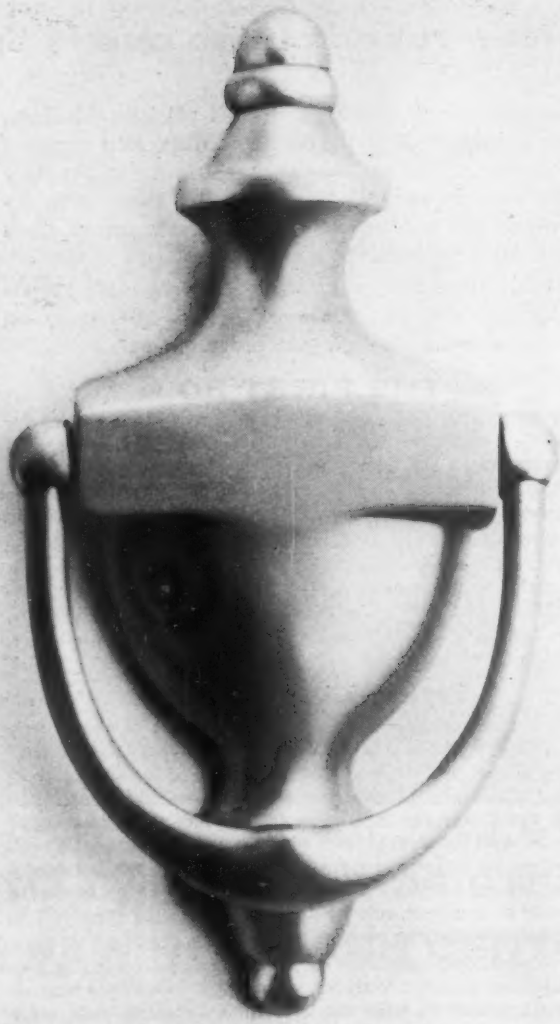

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In Finance

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ICC Guarantees Loans for New Haven RR, N. Y. Central After Easing Its Conditions

After months of delay that threatened to turn the government's railroad assistance program into a farce, the Interstate Commerce Commission last week stepped in to give a helping hand to two hard-pressed railroads. **ICC agreed to back a $1.5-million loan to the New York, New Haven & Hartford, and a $40-million loan to the New York Central.**

Under the Transportation Act of 1958, the ICC could guarantee private loans to railroads provided the companies couldn't obtain funds at reasonable terms without government backing. Wary of red tape, only a handful of lines have applied for such backing, and up to last week ICC had guaranteed only $3.9-million in loans. **But last week's action is seen as a significant sign that ICC now is willing to relax its stringent prerequisites.**

On the New Haven loan, ICC eased the terms it had prescribed last March for loan approval. At that time, the agency had objected to a "put" agreement the New Haven made five years ago with a group of private investors by which it agreed to buy 131,385 shares of its preferred stock at $75 a share from Nov. 18 to Dec. 18 this year. The ICC had required an extension of the period to 1964. But now it said it would put no conditions on its guarantee of 56 private notes at interest rates ranging from 4% to 5%. In fact, it also said it would guarantee a $8.1-million equipment loan the New Haven is negotiating.

On the New York Central loan, ICC will act as co-signer with eight insurance companies on a 15-year loan bearing 5% interest. The only important condition ICC attached was an administrative fee equal to three-quarters of 1% of the face value of the loan.

• • •

American President Lines Bond Issue, Backed by U.S., Sells Out Quickly

American President Lines, Ltd., last week successfully sold $14.4-million of merchant marine bonds, the first public issue of U.S.-insured bonds to finance ships in the process of construction. Grace Line sold $9-million in merchant marine bonds last October, but this was based on completed ships.

The new bonds carried a 5% coupon and were offered at par, a yield somewhat less than has been provided lately by other government-backed issues. **But the big reason for their immediate sellout was the fact that the government guarantee provides for cash payments to bondholders in the event of default.** Other types of government-backed issues pay off in debentures, which are currently marketable only at discounts from par.

Some bond men also think that American President picked a good time to come to market even though outstanding issues were depressed. They point out that its issue came out at a time when a number of investors wanted a good long-term obligation and most other would-be borrowers were afraid to issue bonds in an unsettled market.

• • •

Arizona Proposes Strict Code For Regulation of S&Ls

The downfall of the $46-million Arizona Savings & Loan Assn. (BW—Aug.8'59,p49) is leading to a new savings and loan code for Arizona. The code is soon to go before the state legislature, and state officials believe the bill has a good chance for passage.

Specifically, **the new code (1) forbids any new S&L to start without federal insurance** as provided by the Federal S&L Insurance Corp., which insures over 93% of all S&L assets and insists on strict control over operations; (2) sets up rigid restrictions on loans; and (3) provides for criminal action against S&L officials who misuse funds.

The kicker may be in compulsory insurance. A **compulsory insurance law for S&Ls in Idaho is now facing a Supreme Court test** in that state, and disapproval by the court may lead to a revision of Arizona's new code.

• • •

Finance Briefs

The shadow of the Castro government has again fallen over American & Foreign Power Co. Three weeks ago, A&FP was forced to call off a $15-million bond sale (BW—Aug.29'59,p38) because of the Cuban government's decree that utility rates be cut. Last week, Cuban Electric Co. controlled by A&FP, and supplier of 90% of the island's power needs, deferred action on its regular quarterly dividend "because of the reduction in earnings resulting from the recent rate decree."

Paving the way for a new $25-million expansion program, **Alan Wood Steel Co.** will ask shareholders to raise the company's long-term debt ceiling. At present, the company cannot incur long-term debt in excess of $25-million without getting prior shareholder approval. It is nowhere near that figure now. But the company wants to be in a position to issue debt to cover the expansion program and to repay $4.5-million in bank loans—its only outstanding long-term debt.

The nation's corporations in the second quarter **increased their cash holdings at the fastest quarterly clip since the early 1950s.** The Securities & Exchange Commission this week said working capital was up $3-billion to a record $125.4-billion in the April-June quarter, and that over-all liquidity continues to improve. In a separate report, the Commerce Dept. said dividends for the first eight months totaled $7.2-billion, or 3% higher than the 1958 period.

APPLIANCES of many kinds are pushed in ad campaigns as Toshiba fights for its share of Asia's biggest market.

TRANSISTORS and transistor radios—made at Yokosuka plant of Toshiba's—are new, profitable items.

Japan's Appliance Pioneer Runs In

"Wash three big kimonos at once," says the girl in this Japanese ad (picture), plugging a new $66 electric washing machine—product of Tokyo Shibaura Electric Co., Ltd.

The girl, as the ad designer drew her, has Western features. That may seem strange, considering that her audience is Japanese. Yet, in a way, it makes sense.

In the whole sweep of free Asia, stretching from Pakistan to the Philippines, Japan is the only country with a broad, somewhat Western-style consumer market. Its 92-million people are rapidly becoming accustomed to the whirring noise of washing machines, the pleasures of TV viewing, and the convenience of refrigerators.

• **Exports**—Increased sales abroad, particularly in the vast U.S. market, are still a major target for Japanese industry. Just in the past year or so, Japanese-made transistor radios have successfully invaded the market here. But right at home, Japanese industry has a fast-growing consumer market to cope with. Some U.S. companies, through stock holdings in companies producing for this market, are sharing in this boom.

One sign of the tough domestic competition to sell consumer durables is the fact that Tokyo Shibaura—which dominated the appliance market prewar—has slipped to second place. Matsushita Electric Co., a newcomer, is now considered the No. 1 producer. Hitachi, Ltd. and much smaller Sanyo Electric are battling for third place.

Still, Toshiba—as Tokyo Shibaura is called—is a powerhouse in Japan's electrical-electronics industry. For instance, in January, 1957, it began production of transistors. By last July it was turning out 2-million monthly. With new facilities opened this month, production soon should reach 3-million monthly—the largest amount made by any Japanese company.

• **Boost From GE**—U. S. businessmen often refer to Toshiba as the "GE of Japan." In fact, General Electric has had close connections with the company since 1909. Through its stock holding before the war, it helped build Toshiba into a giant company, with products ranging from communications equipment to appliances and electrical-light bulbs. Now recovered from wartime devastation and postwar "decartelization" troubles, the company can boast annual sales of around $250-million.

Recently, Toshiba signed a three-year, renewable contract with International General Electric—GE's overseas wing—to supply transistors, transistor radios, and vacuum tubes to IGE's foreign markets.

• **Investment Law**—IGE and other U.S. companies eying Japan's home market are having trouble with the Japanese government. Japan's 1949 investment law looked liberal—on the surface. But in practice the government re-

Into Competition

stricted investments by foreign companies because of Japan's foreign-exchange problems. In August, the government "liberalized" the law. But Tokyo observers are dubious of results.

A test case is Toshiba's plan to increase its capitalization next week. IGE, now owning 7.2% of the company (because of various recapitalizations since 1945), would like to pick up its option on the new stock issue. But Tokyo observers question whether the Finance Ministry and conservative Bank of Japan will give the go-ahead to IGE—on the basis that IGE wants. And IGE wants "guarantees" of dollar profit remittances on at least part of the stock issue.

I. The Consumer Market

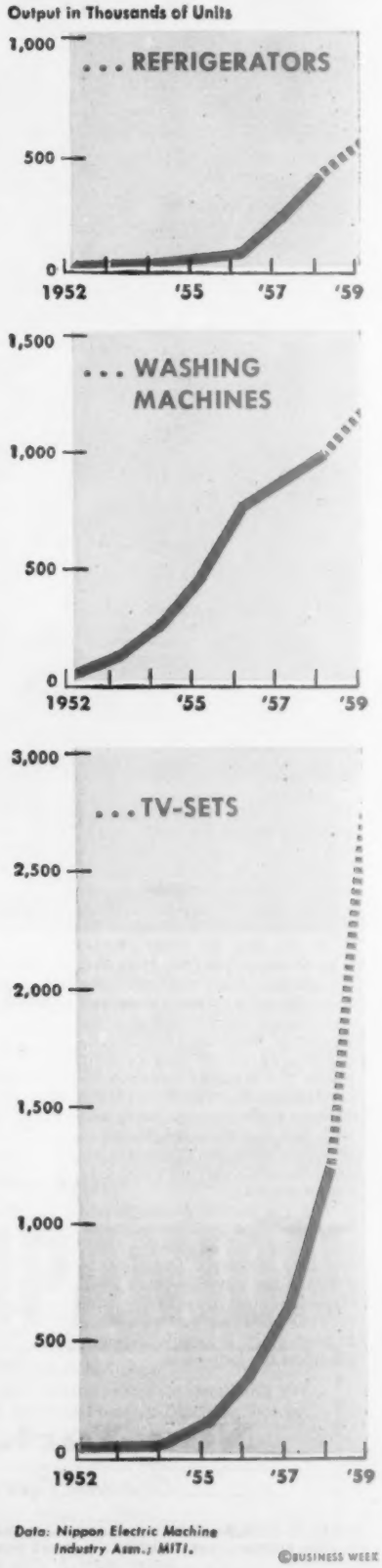
More important than this squabble is Toshiba's need to boost capitalization largely to expand output for the consumer market.

Toshiba's 27,000 employees and 17 plants, of course, produce a wide variety of electrical and electronics equipment for heavy industry. For instance, the company this summer supplied electrical equipment for three new rolling mills—built by Japan's fast-rising steel industry. And Tokyo Power Co. and Kansai Power Co., the country's biggest utilities, ordered big steam turbine generators from Toshiba. Even so, the company is getting an estimated one-third of its sales income from the consumer end.

Before the war, radios, bicycles, and sewing machines were the main higher priced consumer items. Since the war, Japanese industry has not only rebuilt this market but also gone a long step farther.

Today, washing machines, refrigerators, electric rice cookers, TV sets, and vacuum cleaners are taking their place, side by side with the older consumer products. Toshiba alone has sold 2-mil-

Japan's soaring consumer market for . . .



Data: Nippon Electric Machine Industry Assn.; MITI.

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lion electric rice cookers; it has had a large share of the sales of 3.1-million TV sets now in use.

• **Rice Cookers**—To see the size of the consumer market, look at surveys made by the Nippon Electric Machine Industry Assn. About 94% of households in Tokyo have electric irons; some 50% have TV sets and rice cookers. About 23% own portable transistor radios.

But the market is still young—and considerably different from, say, the U.S. market. The same household that has a refrigerator may not have a vacuum cleaner—as you would find in the U.S. Then, the rural areas lag far behind the cities in purchases of consumer durables. Some 14% of Tokyo households own an electric stove. But a broader sampling of the country shows that only 4% have stoves. The startling fact now is that the peasants—as well as the industrial workers—are buying appliances.

Take the problem of heating homes. The old way for the Japanese was to use charcoal-burning "hibachi"—large earthen jars often placed below floor level. Today many homes use electric heaters.

For a company such as Toshiba, the market still has some drawbacks. For one thing, despite Japan's large population, there are only an estimated 19-million "households." That's because relatives pile together in one house or apartment. Thus, the market for appliances is not so large as it might seem.

• **Price Factors**—Then, wages and salaries are low—in comparison to the prices of appliances. The simplest type of vacuum cleaner sells for about $15. That's roughly one-fourth of the monthly wage of a factory worker. On the other hand, each household may have several wage earners. In that light, prices are not prohibitive.

Beyond this, consumer credit is almost nonexistent in capital-short Japan. When a store gives credit, it's usually to a neighborhood family that the store owner has known for years. Matsushita Electric has gone further than any appliance company in backing its retailers. Even so, many appliance dealers continue to go broke for lack of capital.

II. Company History

Though unable so far to keep pace with Matsushita's postwar plunge into appliances, Toshiba has a firm base—in terms of capital and diverse interests—for future expansion.

As early as 1917, Shibaura Engineering Works, a predecessor of the present company, was handling 70% of Japan's electrical machinery business. By 1933 it was producing record-capacity condensers and converters. Parallel with Shibaura, Tokyo Electric Co., the other

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predecessor, was making wire-filament bulbs in 1910. In the 1930s it was developing bulbs and lamps that, in some cases, were ahead of U.S. designs.

Through these years, GE provided the key link between the two companies. It owned 25% of Shibaura Engineering, 51% of Tokyo Electric. When the two merged into Toshiba in 1939, GE's new share was 29.3%.

Before and after the merger, IGE played a big role. It had two directors sitting on Toshiba's board, helped the company adopt GE's cost-accounting methods, and provided an interchange of technical information and administrative personnel.

• **Big Generators**—In 1939, just after the merger, Toshiba built five 100,000-kw. hydro generators for the Soopoong Power Station on the Yalu River. (In 1945, the Russians found them so valuable that they carted them away.) In 1940, the company introduced fluorescent lamps. Beyond technical advances, Toshiba also was organizationally and financially strong because of close ties with the Mitsui "zaibatsu"—one of Japan's cartel-like trading combines.

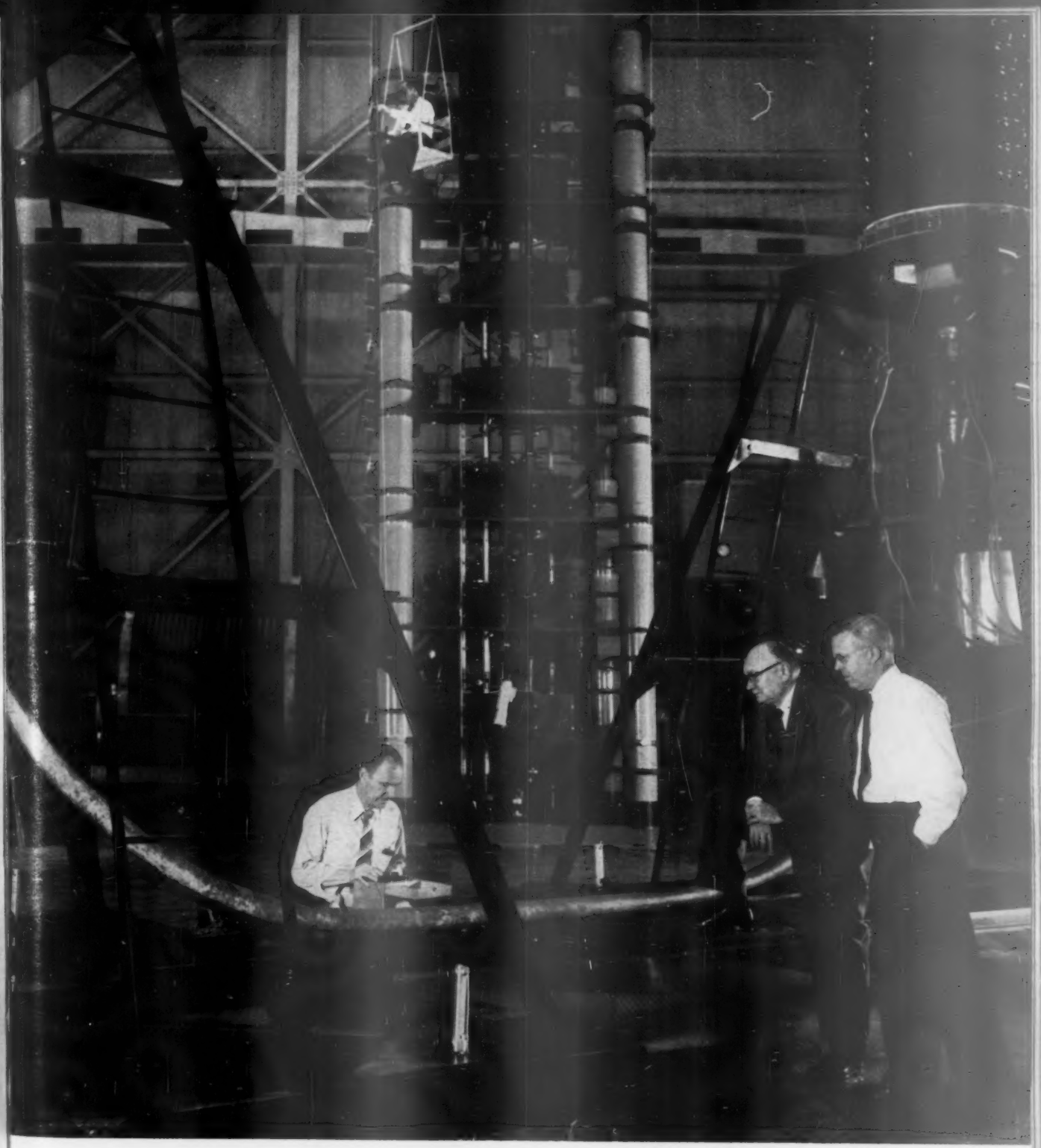
In the immediate postwar years, Toshiba was flat on its back. Some 20% of its plant was destroyed in bombings. Its bank account was at rock bottom: It had produced for the government on credit during the war, then saw these credits wiped out by U.S. Occupation authorities. Its connections with the Mitsui zaibatsu were severed. Occupation authorities drafted a splitup of Toshiba into three parts, but never carried it out.

• **Stock Offer**—To raise new capital—and to end the prewar custom of merely borrowing from the Mitsui Bank—Toshiba offered stock for sale. GE—which won't comment on the situation—refused to buy the new stock under its pre-emptive rights. GE's stock holding thus declined to 7.2%.

Still the largest single stockholder, GE helped Toshiba get back on its feet. In 1949, Taizo Ishizaka—official of the Dai-Ichi Insurance Co. and one of Toshiba's chief creditors—took the reins as boss. To bring in an outsider—and not use an up-from-the-ranks executive, as commonly happens in Japan—was drastic medicine. It worked.

III. The Competition

In the past decade, Toshiba made up for lost time by acquiring technical processes from many Western companies. Between 1951 and 1957, it signed 31 licensing agreements—10 of them with IGE. It signed a deal with Day Brite Lighting Inc. for fluorescent lights. It signed another with RCA for TV tubes, TV sets, and telecommunication equipment. It licensed



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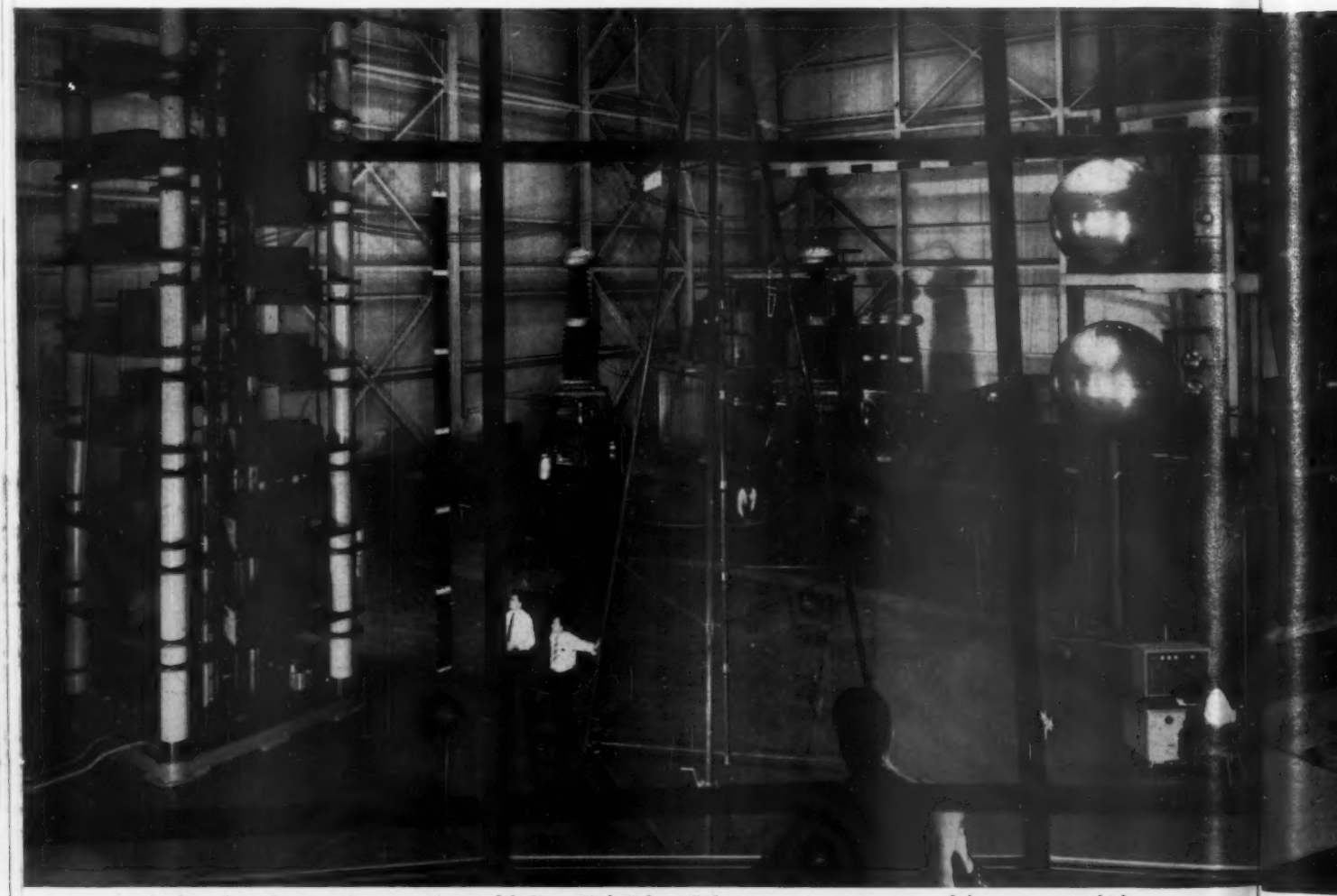

Looking from the control room at Anaconda's Extra-High-Voltage Laboratory, you can see some of the equipment which helps make this the most modern laboratory of its type in the nation.

Lightning *does* strike twice in the same place.

Lightning—3 million volts of it—is a regular occurrence on the Impulse Generator in Anaconda's new Extra-High-Voltage Laboratory at Hastings-on-Hudson, New York. It generates enough voltage to break down any known cable. More than that, this generator is a symbol, an example of the vast extra-high-voltage (EHV) facilities which enable Anaconda engineers to duplicate *actual in-service* conditions—to find out how today's cable can be improved to deliver more power more efficiently.

Most powerful "improving" facility is the cyclic load testing. Cable samples aren't short lengths employed in ordinary lab work—aren't heated by trick means and don't have high resistance conductors. They're full-sized commercial cables, heated by actual load current in the conductor and energized continuously with voltages 150% of rated. The equipment tests cable up to ratings of 5400 mva (5 *billion* watts —more than New York City uses!).

A PROVING GROUND FOR TOMORROW'S EHV CABLE AND ACCESSORIES

Here you see an essential step in the development of an Anaconda accessory—full-scale and exacting electrical testing.

When it becomes necessary to go underground —due to lack of urban space—the solution is high-voltage cable, 138 kv and 230 kv today, 345 kv—even higher tomorrow. Right now, Anaconda engineers are developing the cables and accessories for tomorrow's anticipated demands and higher voltage requirements.

As every engineer knows, high-voltage cables must be jointed with extreme care—in extra-high-voltage cable installations, it is mandatory that jointing and terminating be so designed as to be just as reliable as the cable itself. That is why Anaconda has been designing and building accessory equipment—for over thirty years.

59255

Turn the page to see Anaconda Cable going into another new installation.

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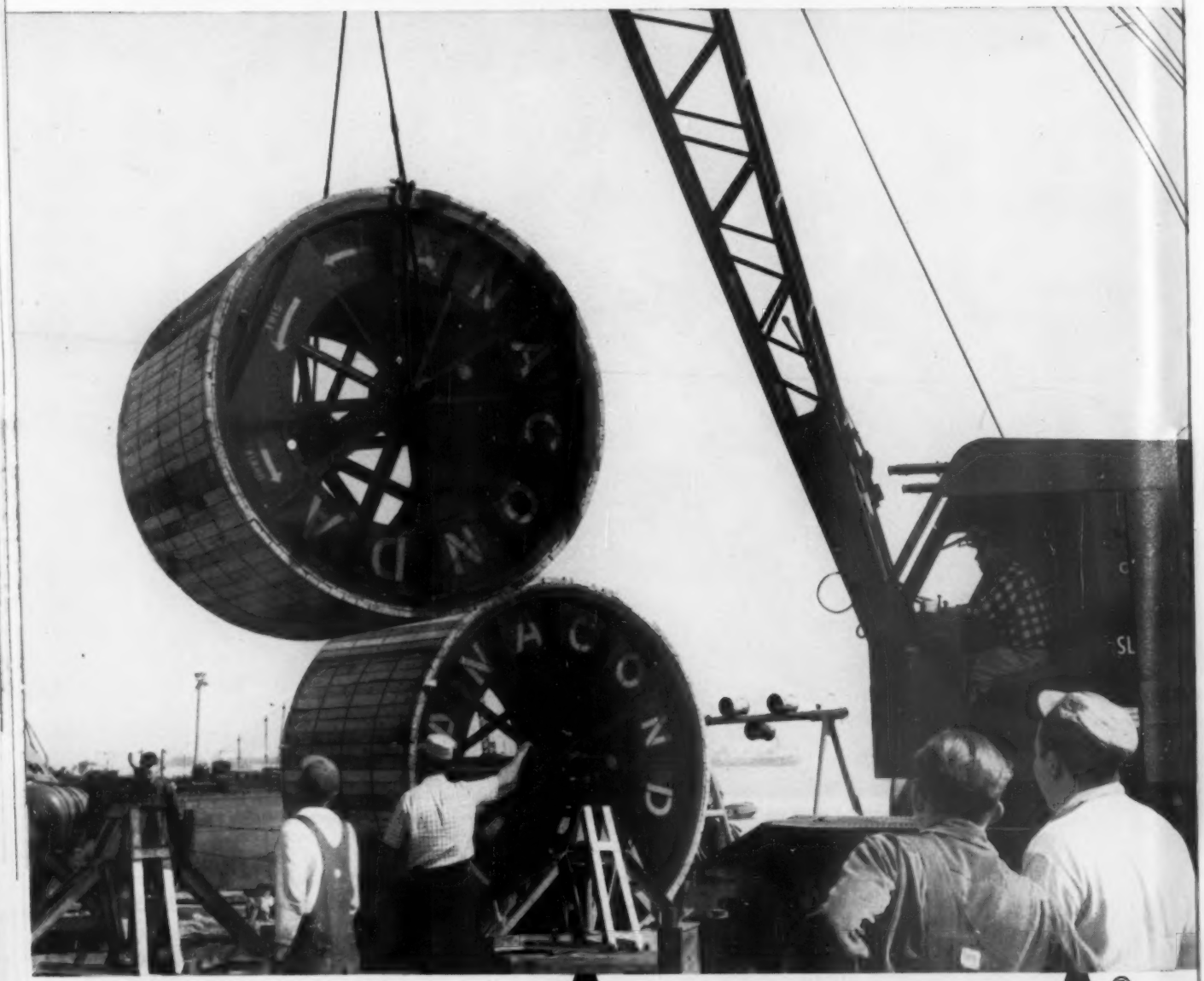

Anaconda 138 kv cable being delivered for installation by Consolidated Edison of New York—another step in the planned expansion of this utility to keep ahead of electrical demands in the growing dynamic area they serve.

ANACONDA®

WIRE AND CABLE COMPANY

". . . Toshiba isn't the only company in its industry with foreign connections . . ."

(STORY on page 58)

phonograph-record manufacturing techniques from Britain's Gramophone Co. From Philips of Eindhoven, it got additional TV-manufacturing information.

Toshiba isn't the only company in its industry with foreign connections. Philips owns 30% of Matsushita Electronics' stock. International Standard Electric Corp., a subsidiary of ITT, owns 22% of Nippon Electric and 13% of Sumitomo Electric. Westinghouse Electric International has a 4% holding in Mitsubishi Electric. RCA reportedly is considering buying into Sanyo Electric.

Right now, despite its prewar pioneering of appliances, Toshiba has only an estimated 25% of the market. Its products have an excellent reputation for quality. But—say Tokyo observers—its styling and salesmanship aren't always up to the pace set by competitors.

Matsushita Electronics' success has hinged on the personal drive of its president, Konosuke Matsushita. He put the accent on consumer goods when no one else believed Japanese industry would even make a comeback. He recognized that Japanese society is changing. For example, he launched a drive to sell washing machines when most people were saying it sounded foolish.

Sony, formed in 1946, saw the transistor radio market before competitors. A small company, it will have to fight to keep up with other companies. It uses aggressive advertising and promotion. Its electronics research is rated as tops. Some observers think it may concentrate on high-priced goods, such as stereophonic tape recorders.

Hitachi is not exactly an item-for-item competitor for Toshiba. For instance, it makes construction equipment. It no longer shuns agreements with foreign companies, now has become a major IGE licensee for turbines and semiconductors. In appliances, its line of products is not so complete as those of competitors. But industry observers say its designs are often better than Toshiba's. Still, observers also say Hitachi's penny-pinching management hampers its marketing.

In any case, the industry has so broad a base at home that it is looking eagerly at export markets—for sales of appliances as well as the already fast-selling transistor radios. Matsushita is considering exports of electric rice cookers to the U.S. Toshiba is toying with the idea of a big New York sales office. **END**

HOW TO BEAT THE CLOCK WITH the WASSELL TWINS OF MANAGEMENT

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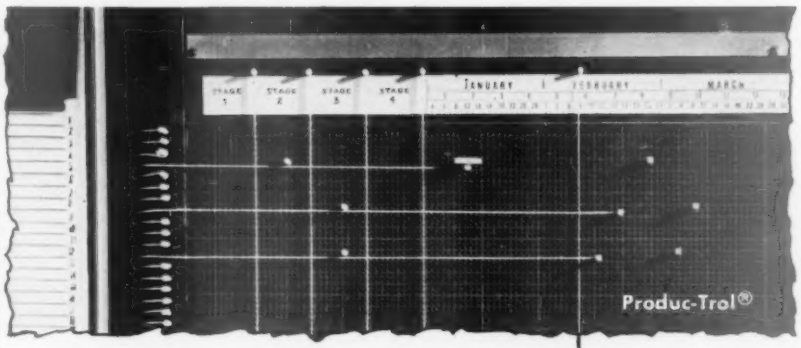

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In Business Abroad

• • •

Russia Lines Up Two Distributors For Its Cars in West Germany

Soviet trade officials have made West Germany a prime target as a market for Russian-made cars. But so far they have failed to sell a single car—auto dealers turned them down (BW—Sep.12'59,p39).

Now the Russian auto salesmen think they have crossed that hurdle. Soviet officials attending the Frankfurt auto show last week happily announced that they had concluded deals with two West German auto importers. One distributor will handle sales in north Germany; the other will have the territory embracing the North Rhine-Westphalia area and south Germany.

Russian cars were shown at the Frankfurt auto show for the first time last week. And Soviet officials made it clear that they are serious about building up a long-range market. Trade talk is that importers will pay only $750, plus $50 in shipping charges, for the 52-hp. Moskvich. Its list price is set at $1,200; the larger Volga is listed at $1,900.

• • •

Sentiment and Interest Help Settle "Shrimp War" of Mexico, Guatemala

National sentiment and mutual economic interest led to an ending of the famous "shrimp war" between Mexico and Guatemala last week. Taking advantage of the fact that they both celebrate independence day on Sept. 15, the two Latin neighbors chose the occasion to announce a resumption of diplomatic relations.

Tempers flared last winter when Guatemala accused Mexico of poaching on its fishing grounds. **While Guatemala's Pres. Ydigoras talked tough, planes from his air force machine-gunned Mexican shrimp boats.** Mexico thereupon broke off relations last January.

But businessmen in both countries put on pressure to patch up differences. The dispute was hampering normal flow of trade between Central American countries, which have recently formed a common market. Mexican companies—including Mexican-based U.S. outfits—usually do an annual business of $15-million with Guatemala and adjoining countries. The argument had also disrupted construction progress on the Inter-American highway.

• • •

Russia Eases Loan Terms to India, Sharpening Challenge to the West

The challenge to the West in aiding underdeveloped countries—a problem already raised by Pres. Eisenhower—will loom large at the International Monetary Fund meetings in Washington next week. India, for one, is seeking additional financial help from the U.S. and other Western nations.

Moscow last week sharpened the challenge by easing repayment terms for the $680-million of loans already made or promised to India. **Previously, Russia wanted payments in rupees convertible into sterling. Now it will take payment in Indian goods and services.** This move was welcomed by India, whose sterling balances have run low during the second Five-Year Plan. Because India sees trouble ahead in meeting loan repayments during the third Five-Year Plan (1961-1966), New Delhi has been seeking easier terms from all countries extending aid.

The latest Soviet move poses a tough problem for the U.S. and the West. Russia is already lending $301-million to India for its second Five-Year Plan ending in 1961. It has promised $378-million for the third plan, and is now expected to offer about $250-million more.

But the third plan may require a total of $5.3-billion in foreign exchange. Because of its repayment problems, New Delhi hopes to get as much as $4.2-billion—mostly soft loans—from the U.S. The U.S., however, wants to have other industrialized countries share the burden of development costs for all the have-not nations.

• • •

Britain Gives the Go-Ahead on Portion Of Commonwealth Telephone Hookup

The plan for a round-the-world telephone system linking the Commonwealth countries has moved a step closer to reality. The British government has announced it would go ahead with its portion of the $225-million project.

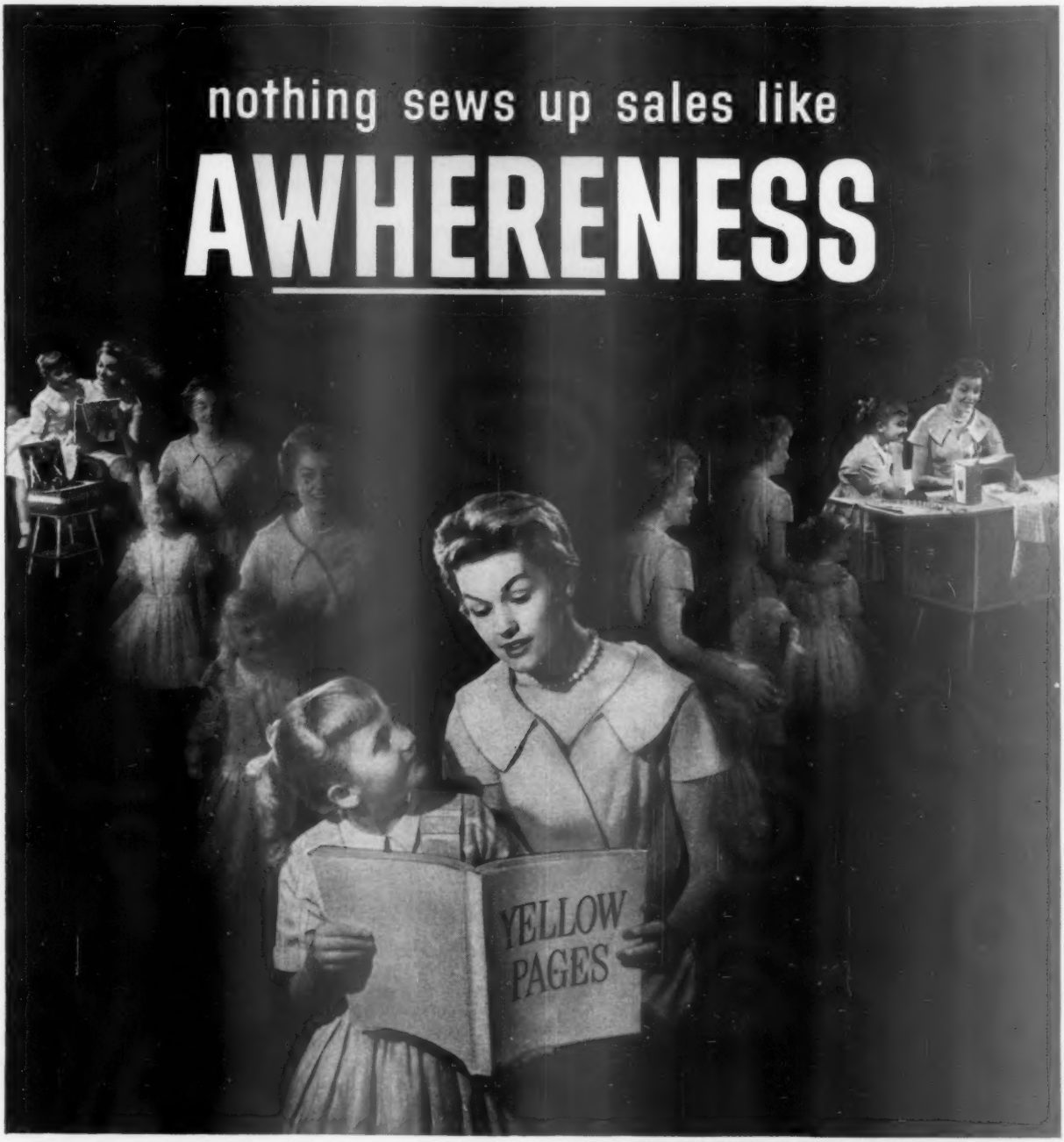
The government assigned responsibility for the U.K. portion of the project to Cable & Wireless, Ltd. The company will undertake to finance, build, and maintain the network and will work in partnership with Britain's General Post Office in designing and engineering the system. Cable-laying will begin in 1961 when the first link between Scotland and Newfoundland is started. The cable will be jointly owned by Cable & Wireless and the Canadian Overseas Telecommunication Corp. The system will be designed to carry 60 conversations simultaneously.

A second cable is planned to link Canada to Australia and New Zealand, but participation of the other Commonwealth countries is still under discussion. The round-the-world cable was approved at the Commonwealth Trade & Economic Conference at Montreal in September, 1958.

• • •

Orient Express Extends Runs

Cloak-and-dagger mystery writers and TV scripters got some extra mileage for their episodes this month as **the famed Orient Express extended its run to Beirut, Lebanon.** For the first time since World War II, passengers can board the train in London on Sunday and reach Beirut the following Saturday via France, Switzerland, Italy, Yugoslavia, Bulgaria, Turkey, and Syria. Up to now, the train had gone only to Aleppo, Syria, and to Baghdad.



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Sewing Machines to Screens . . . Dressmakers to Diamonds . . . whatever, wherever, however you sell, sew-up bigger sales by adding AWHERENESS to your advertising plan. It's easy when you use the Yellow Pages — the shopping guide that tells your prospects *where* to buy what you sell.

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Ask the Yellow Pages man to pattern an AWHERENESS sales program to fit your needs. Call your Bell telephone business office today.

YELLOW PAGES

The advertising medium that tells people where to find your local outlets!

In Management

• • •

Jersey Standard Picks Morgan Davis To Head Its Newly Grouped Affiliates

The new line-up of top executives that will result from the reorganization of the domestic operations of Standard Oil Co. (N. J.) is beginning to take shape.

Under the plan announced earlier this month (BW–Sep.12'59,p48), Jersey Standard is merging its five domestic affiliates–Humble Oil & Refining Co. (Tex.), Esso Standard Oil Co., Carter Oil Co., Oklahoma Oil Co., and Pate Oil Co.–into a single wholly owned subsidiary, Humble Oil & Refining Co. (Del.). Esso Carter, Oklahoma, and Pate will become operating divisions of Humble of Delaware.

This week the parent company announced that Morgan J. Davis, president of the present Humble, will also be president of the new Humble. John W. Brice, president of Carter; William Naden, president of Esso Standard; and C. E. Reistle, Jr., executive vice-president of Humble of Texas, will be executive vice-presidents.

Named vice-presidents of the new company were H. W. Ferguson, now vice-president of Humble of Texas; H. W. Haight, now chairman of Carter; and E. D. Reeves, now executive vice-president of Esso Standard. All will also be directors.

Final selection of officers will be made by the new board of Humble. These men, however, have been designated as "probable incumbents" by Jersey Standard. For the time being Esso, Carter, Oklahoma, and Pate will continue to operate with their present officers and boards.

• • •

Getty Finds Tidewater Stock Too Low, So Merger With Skelly Is Called Off

Jean Paul Getty is evidently not in as much of a hurry to bind his oil empire into a tighter structure as had been thought. The proposed merger (BW–Jul.18'59, p29) between two of his companies, Tidewater Oil Co. and Skelly Oil Co., was called off last week.

It was Tidewater that backed out of the merger, which would have created a billion-dollar oil giant ranking 12th among U. S. oil companies. The sticking point was the relative assets of the two companies. Tidewater Pres. George F. Getty II felt his company's stock was undervalued by the market in relation to his appraisal of assets and evaluation of earnings.

One object of the merger was to give Tidewater the benefit of Skelly's crude oil producing capacity. Now, says George Getty, Tidewater's reserve situation has improved. Furthermore, he feels, the shift of emphasis from production to marketing in the world petroleum picture will accomplish some of the merger's objectives.

Cancellation of the merger talks doesn't mean that the idea is dead. Such talks have been held several times since 1937. "If we could get our market price somewhere near the appraised value of our assets, then we could talk again," says George Getty. "But this won't happen this week or next."

MORE NEWS ABOUT MANAGEMENT ON.

• P. 74–How Ford's "Quiz Kids" trained for top roles in the company, and how they will run it in a new "compact car" era.

• • •

Lesser Ad Brass Wants Attention

Top management at advertising agencies doesn't pay enough attention to the petty complaints of the lesser brass–according to the lesser brass.

Robert C. Durham Associates, consultants who have specialized in agency mergers, have surveyed 150 executives in the over-$25,000 but below-the-top category.

More than three-quarters of them said they were dissatisfied, and 84% of the complainers blamed the failure of their bosses to listen to minor but repeated complaints.

As for the top men, two-thirds of those surveyed said they hadn't even known their subordinates were feeling peevish.

• • •

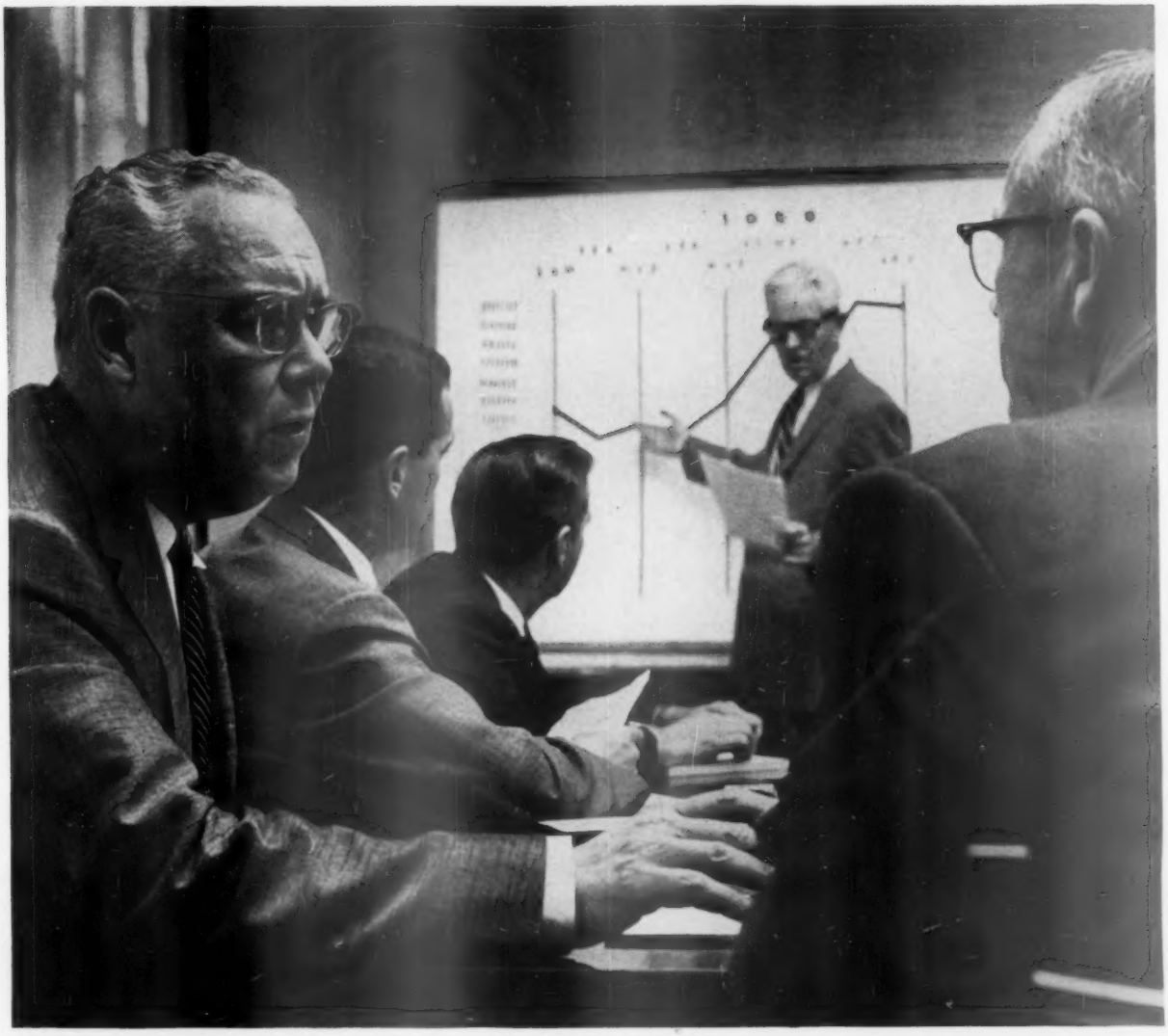
Management Briefs

General Electric Co. last week gave Association Island, its $1-million management development center in Lake Ontario, to the New York YMCA. GE held summer management meetings at Association Island in the early 1900s, but in recent years has replaced it with a year-around Management Research & Development Center at Crotonville, N. Y., and by courses and meetings in plant towns.

More students are seeking PhDs, as industry demand rises for people with doctorates. The U. S. Office of Education figures that 9,700 earned doctorates will be awarded next June, 45% more than in 1950; the total is expected to reach 18,100 by 1970–up 85%. By contrast, fewer bachelor's and first professional degrees will be awarded next year than in 1950, while the increase from 1960 to 1970 is expected to be 75%.

Two companies last week lost their presidents by resignation. **A. E. H. Fair quit Brown Co.,** Boston paper company, saying he "intends to extend further my consulting work in the paper industry with Brown and other companies." **L. B. Harnett left Valspar Corp.,** Ardmore (Pa.) paint and varnish maker, with "no comment at this time."

C-E-I-R, Inc., Arlington (Va.) commercial computing service organization, is setting up **a nationwide chain of centers.** The company will install IBM 7090 computers in New York, Houston, and Washington, later will put newer models in Chicago and Los Angeles. Somewhat similar plans to provide computer service for a fee have been announced recently by IBM (BW–Aug.8'59,p36) and RCA (BW–Jul.4'59,p22).



"What did he say?"

Millions of people are bothered and embarrassed by not knowing "what goes on". Perhaps this situation is all-too familiar to you. If you must strain to hear, or are bothered by "ringing" in the ears . . . you may have a hearing defect that can be costly in your business career and annoying in your social life.

For most hard-of-hearing people, fortunately, help is available. First see your doctor. Then, if your hearing loss can be corrected, visit a hearing aid specialist. He's thoroughly familiar with today's tiny but highly efficient instruments . . . is well qualified to fit you with an inconspicuous aid that suits you best.

Chances are, it'll be powered by Mallory Mercury Batteries, the amazing pill-size energy capsules pioneered by Mallory, that help make modern hearing aids possible.

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Here's the car that takes **anything . . . everything!** Load two 40-foot trailers, two auto carriers, three 27-foot trailers, or four 20-foot containers. Accepts any mix of standard semi-trailers, semi-trailers with automatic landing gear, containers, tank containers or moving vans.

The tractor driver is all the personnel you need during loading and unloading. Your switching yard crew is required *only* at arrival and departure of trains to raise or lower the hinged bridging rails. An entirely new automatic tractor-operated hitch does the trick. No jacks, chains or power tools. A unique self-aligning center guide system permits trailers to be backed on *even with no hands on the steering wheel.*

Lower than any other piggyback, the G-85 gives you best clearances for today's maximum height trailers. No side rails—thus no obstacles to tomorrow's wider trailers.

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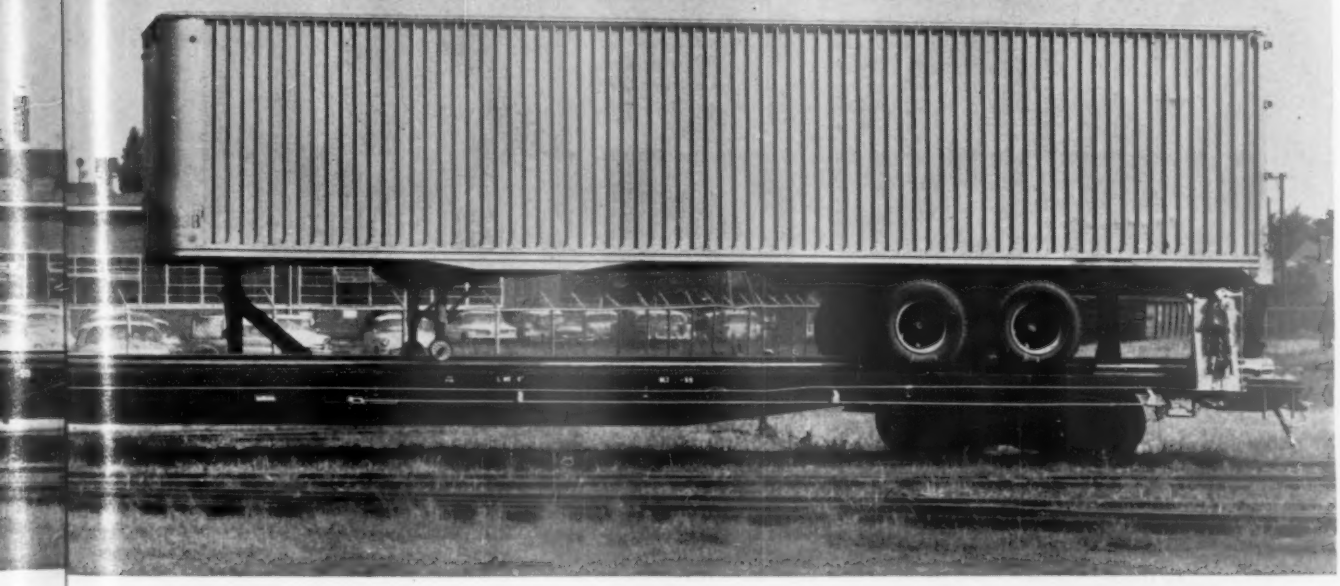

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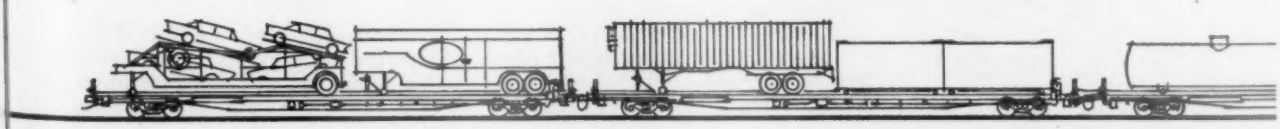


Ford's Peculiar Management Line-Up

THE BOSS — He took over a shattered company in 1945 and rebuilt it. Now only 42, he'll go on being boss as the new management generation moves up under him.

Henry Ford II

Ernest R. Breech, *now 62, as executive vice-president, then chairman, was master mind in Ford's growth.*

Lewis D. Crusoe, *64, now retired. He set up cost controls and planning, built up Ford Div., shepherded Quiz Kids.*

Robert S. McNamara, *group vice-president for cars and trucks.*

Delmar S. Harder, *67, now retired. He ran basic manufacturing as vice-president, then executive vice-president.*

Theodore O. Yntema, *59, vice-president, finance. Is a top financial spokesman, helped train some Quiz Kids.*

William T. Gossett, *55, long a corporation lawyer, handles legal matters as vice-president, general counsel.*

THE OLD HANDS — These are the men who have run the company under Henry Ford II since the war and have put it back on the track. Mostly they are at or near retirement.

Ford Hands the Wheel to Youth

As it starts to show its new models next week, the automobile industry enters the 1960s—the decade when the postwar babies become customers for cars. It's a new era for the industry, ushered in by one of the great changes in its history—the compact cars.

At each of the auto companies, the new era has a special significance:

At American Motors Corp. the significance is in the vindication of its small-car concept.

At the Studebaker-Packard Corp. the new era provides a spur to complete its financial comeback before the full weight of Big Three competition falls upon it.

At General Motors Corp. there is the challenge to continue to win the biggest share of those new customers—most of whom have not yet acquired a loyalty to any brand name.

At Chrysler Corp. the period ahead is the final test of its ability to unravel its multiple marketing system to preserve all its car lines.

At Ford Motor Co., though, the new era offers the most challenging combination of danger and opportunity found at any auto company. Getting and holding the new generation of customers is up to a new generation of management led by 43-year-old Robert S. McNamara (cover), group vice-president for cars and trucks, whose Thunderbird a few years ago signaled that the auto market was ready for sweeping product changes.

• **End of a Period**—Ford Motor Co. has about reached the end of its swaddling period. At the close of World War II, it underwent a management upheaval, and a new crew took charge. The men brought in by Henry Ford II at that time were experienced business and automobile men. They turned the company around, and turned a fantastic loss into profits that are swelling this year to perhaps the biggest in Ford's 56 years.

The men who, in the late 1940s, started the company up the high road to the 1950s now are turning the wheel over to new drivers. The future of Ford

John S. Bugas

John R. Davis

HIS CLOSE PERSONAL ADVISERS — These are the men Henry Ford II turned to after the war to help him take over the company — the men he still turns to for policy advice.

"THE QUIZ KIDS" — These men were hired in a package in 1946, when they were rounding 30. The six who are left will have key roles as Ford moves into the 1960s.

James O. Wright, *vice-president, general manager, Ford Div.*

Ben D. Mills, *vice-president and general manager, M-E-L Div.*

Arjay R. Miller, *company comptroller and a vice-president.*

J. Edward Lundy, *company treasurer; his specialty is finance.*

Charles E. Bosworth, *director of purchasing for Ford Div.*

W. R. Andreson *left first, runs California van and storage firm.*

George Moore *has string of Ford, Lincoln-Mercury dealerships.*

Charles B. Thornton, *original leader, now heads Litton Industries.*

F. C. Reith *is president of Crosley Div., Avco Mfg. Corp.*

in the 1960s rests with men who were barely starting in business 13 years ago, and most of whom still are relatively unsung in Detroit.

• **Carrying On**—This group, led by McNamara, already has great influence over the policies and direction of a company that is quite unlike any other in the automobile industry today. Not only is much of Ford top management young, it is composed of business administration and finance specialists who, to a large degree, have enshrined cost control and profitability considerations above extravagant sales volume. In this, they resemble the managers of General Motors 40 years ago.

Since the principal training ground for management at Ford is the finance office, the new leadership is well grounded in this Ford tradition and ready to carry it over into the industry's new era.

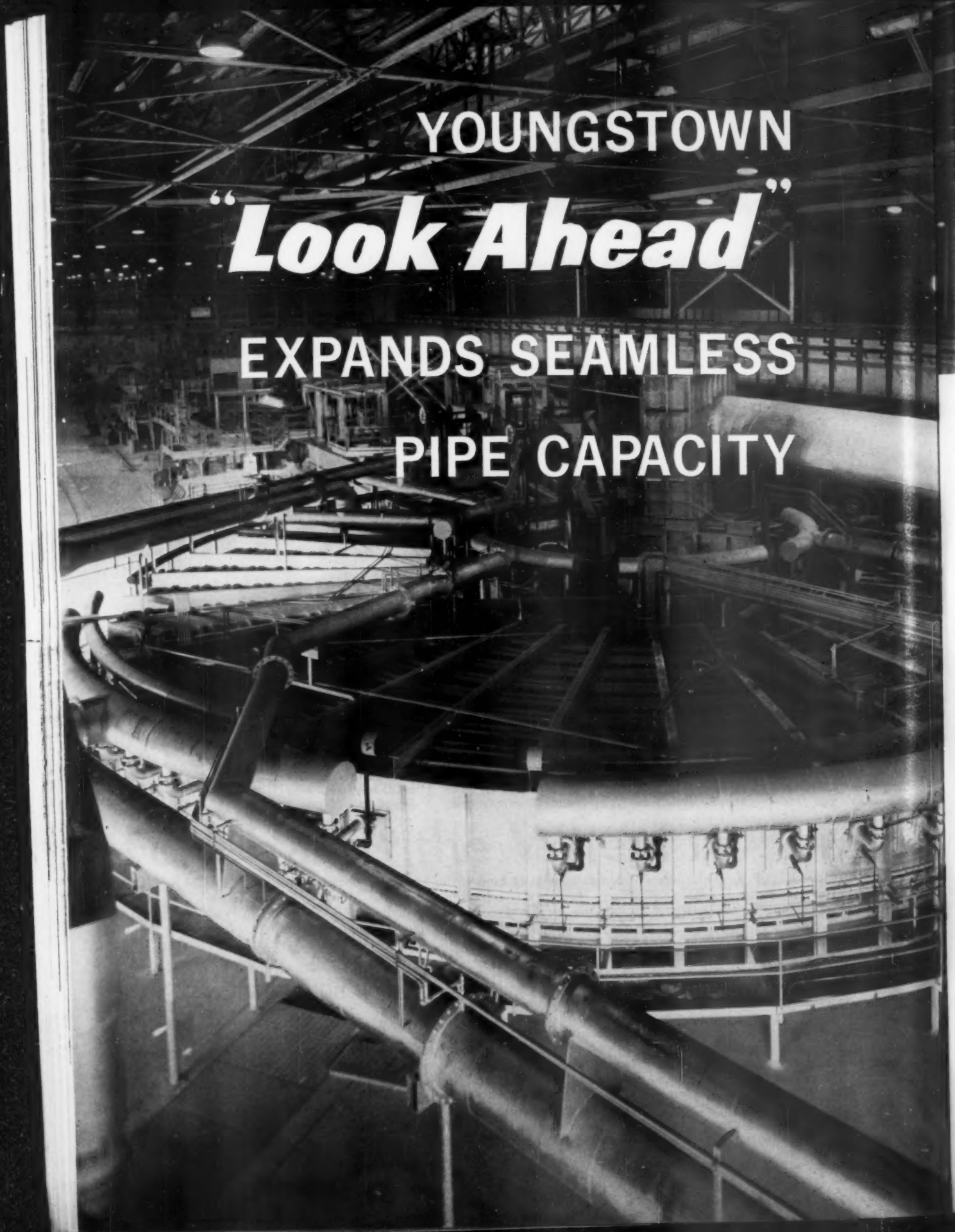
At their head, of course, is Pres. Henry Ford, II, 42 years old this month. Working with him or in major staff posts remain some of the veterans he relied upon for support to rebuild the company.

But operating responsibility for the biggest chunk of business is in the hands of a new generation: McNamara; James O. Wright, 47-year-old vice-president and general manager of the multi-billion-dollar-a-year Ford Div.; and Ben D. Mills, 44, vice-president and general manager of the M-E-L Div. (Mercury, Edsel, Lincoln).

All three came to Ford 13½ years ago under circumstances and with results unique in American management. They were part of a "package deal."

I. Help Wanted

The circumstances of their entry were simple, yet dramatic. Ford Motor Co. needed all kinds of men. For years it was one of the most successful of enterprises, yet it was adrift when Henry Ford II became president on Sept. 21, 1945. His grandfather had been nominal president, but was ailing at his home. Harry Bennett, his long-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You are looking at the world's largest Rotary Billet Heating Furnace in our brand new No. 3 Seamless Tube Mill near Chicago. It heats 190 steel billets per hour to 2250°F. for piercing into oil well casing and line pipe.

This new source of pipe together with our recently completed Stretch-Reduce Mill at Youngstown, helps us meet the growing demands of the oil and gas industries. Naturally, the seamless pipe from these two new mills wears our famous Orange Bands . . . hallmark of Youngstown quality throughout the oil patch.

This "Look Ahead" expansion program anticipates your steel needs for quantity, quality, and personal service. Watch for our next report to you on progress at Youngstown . . . the dynamic force in basic steel. ***The Youngstown Sheet and Tube Company,*** Youngstown, Ohio. Carbon, Alloy and Yoloy Steel.

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Youngstown

QUALITY YOUNGSTOWN SERVICE

time confidential aide, ran the company in his name.

Henry II was 28, eager, ambitious—and fully aware that he knew little about the company or the automobile business. What he did know was that everything—plants, management, products, concepts, goals—all had to be modernized. "We needed to improve in every direction," he recently told BUSINESS WEEK.

• **Upheaval**—Henry II fired Bennett and established an informal cabinet of three men. Two of these are still his principal advisers (pictures): John R. Davis, then 51, a family friend and Ford man since 1919, who became vice-president for sales and is now retired and a consultant; and John S. Bugas, 37 in 1945, who became vice-president for industrial relations and is now also vice-president of the international group. The third, Meade L. Bricker, vice-president for manufacturing, retired nine years ago.

To take charge of shaking the rust out of the mammoth Ford machine, Henry II brought in as executive vice-president—now chairman—Ernest R. Breech, who was then president of Bendix Aviation Corp. and had previously been for many years a General Motors executive. Breech set the new organizational pattern, and brought in Lewis D. Crusoe to hack away at costs and untangle the mess that was putting Ford into the red "at the rate of nearly $9-million a month," as Breech reported later.

Between 1946 and 1950, Breech, Crusoe, and Henry II recruited enough more senior executives to bring Ford's top echelon to a round dozen—not counting Henry II, who, though boss, was still learning.

• **Looking Ahead**—But Ford was building for the future. These dozen men became the teachers of younger men recruited from the lower ranks as Breech made over the company in the General Motors' staff-and-line image to give younger men the chance to learn and grow by exercising authority and responsibility.

Though no one could know it at the time, the most productive of the younger men were already at Ford when Breech moved in. They were there because of a telegram that set in motion an unparalleled chain of events.

II. The "Quiz Kids"

That story begins during World War II when the Army Air Force established a statistical control office to keep track of its enormous production and flow of materiel. At the head of "stat control" was Col. Charles B. Thornton, before the war a government employee. His principal subordinates were lawyers, economists, accountants, and business administration graduates, many of whom were sent by the Air Force to the Harvard Graduate School of Business Administration.

• **Job Hunt**—As the war drew to a close in 1945, a group of stat control officers began wondering about postwar jobs. From wartime observation they knew that industry did not have the type of statistical controls on production, inventory, and the like that they had developed for the Air Force. From that grew the idea of several of them going into business as a team.

Four of them—Thornton, Ben Mills, George Moore, and F. C. Reith prepared a brochure explaining what statistical control was and how it could be applied in industry, and what kind of men were available to apply it. Mailed to several hundred companies, it drew 10 replies, among them one from Robert R. Young, head of Alleghany Corp.

• **Approach to Ford**—About this time Moore, a native of Detroit, went home on vacation and heard about Henry Ford II's interest in new management. He returned to the Pentagon and told Thornton; then, as Mills recalls, Thornton, Mills, Moore, and Reith debated how to approach Henry II. They doubted that a letter would get to him—anyway there was need for haste as Thornton and Moore had an appointment in the next few days with Robert Young. They thought a phone call would be a little brash. Finally they decided on a telegram.

Mills remembers that the telegram said something to the effect that "we have a matter of management significance to discuss with you." Moore adds that it also pointed out that the signer (Thornton) had been directing 6,000 people around the world in management activities.

Mills says now they didn't really expect any reply; but the next morning Ford's Washington office telephoned to arrange an appointment in Dearborn. In late November, 1945, Thornton and Moore went first to Cleveland to talk to Young, got an offer and a 10-day period in which to reply, and then went on to Dearborn.

• **Meeting**—Henry Ford II recalls that he got the telegram and turned it over to George Coulton, his office manager. Coulton met with Thornton and Moore and shortly went into Henry II's office saying that he couldn't deal with Thornton and that Ford himself had better talk to him. Ford did, along with Bugas.

They could have struck a deal right there to hire the four—Thornton, Moore, Mills, and Reith; Henry II knew he needed all sorts of management men, and Thornton was impressed with the wide-open opportunity at Ford and the chance of working directly

SAVE UP TO $400

per car per year with the new

RENAULT FLEET PLAN.

LOW INITIAL INVESTMENT,

gas economy (up to 40 mpg), easy maintenance and high trade-in values.

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(RENAULT HAS BEEN MAKING GREAT CARS SINCE 1896) *Get comfort, roominess plus an easy-to-park, maneuverable car.* **TOP NOTCH SERVICE AVAILABLE: Over 850 authorized Renault dealers regularly supplied with parts via special air delivery from France.**

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with the company president. Instead they agreed to think about it overnight.

The next morning Thornton telephoned Henry II and found the welcome mat still out. Thornton was to select the number of the men and recommend salary for each.

• **Package**—Back in Washington the four sifted the qualifications of hundreds of stat control officers and finally decided on 10—for no better reason than that it was a nice round number, not too many, not too few. Then each of the 10 prepared a personal evaluation of his capabilities along with a salary recommendation. The lowest salary was $9,000, most were $12,000, and one —likely Thornton's—was higher. The group was presented officially to Henry Ford II and John Bugas early in January, 1946, at a luncheon in the Ford Rotunda—with Mills, on assignment on the West Coast, and McNamara, recovering from infantile paralysis, absent.

The 10, and their ages at the time, were: Charles B. Thornton, 32; George Moore, 25; F. C. (Jack) Reith, 31; Ben D. Mills, 30; Robert S. McNamara, 29; James O. Wright, 34; Arjay R. Miller, 29; J. Edward Lundy, 31; Charles E. Bosworth, 29; W. R. Andreson, 30. Around the company they always have been known as the "Quiz Kids" for a reason that soon became apparent.

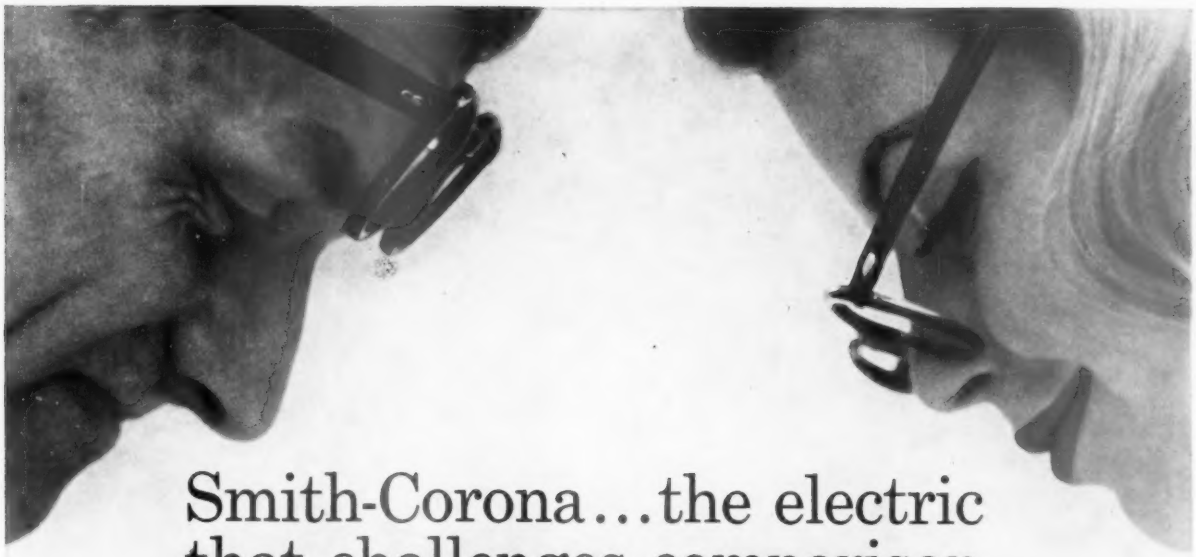
• **Firing Questions**—Henry Ford II knew he needed talent, and here he had one big package of raw talent that he didn't quite know how to use. Obviously, though, the first step was for the 10 to learn the company.

"For three straight months," one of them remembers, "every day we talked to a department supervisor—one a day. Ten of us, all asking questions. We would march in in the morning, sit down, and start firing questions and taking notes. We asked questions no one around Ford was supposed to ask—and we got answers. Henry backed us all the way. At the end of that time we knew more about the company than anyone else—and more than anyone had ever known."

"They were," mildly says a Ford veteran whom the passing years has made tolerant, "pretty obnoxious."

• **Facts of Life**—At the end of the training period the 10 became a "programing department" headed by Thornton, who reported to Henry Ford II. In a few months Crusoe came to Ford and the group went under his direction. Then their real education began.

This is not surprising considering how the episode of the Quiz Kids began and unfolded. When they first started discussing going into business together, none of them had had extensive experience in private industry. They had a hot idea, great self-confidence, ambition—and little notion of how corporate management really works



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ELECTRIC TYPEWRITER COMPARISON CHART	Smith Corona	Brand A	Brand B	Brand C	Brand D
AUTOMATIC MARGINS (one-hand, one-step operation)	✓			✓	
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ERROR CONTROL (eases corrections, line justification)	✓				
PAGE GAGE (accurately indicates bottom margin)	✓			✓	
KEYBOARD SLOPE (fits natural finger movement)	✓				
CUSHIONED TOUCH (ends fingertip jar at stroke end)	✓				
WORLD'S FASTEST ELECTRIC TYPEWRITER	✓				

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Smith-Corona Electric

TONKA TOYS get extra sales play with "playproof" Du Pont DULUX® Enamel

- Gleaming finish and structural stamina are responsible for wide trade and consumer acceptance
- Development and operation of high-speed finishing line typifies successful Du Pont-customer relationship

The eye appeal and durability of gleaming "Dulux" Enamel have helped Tonka Toys of Mound, Minnesota, become one of the country's leading manufacturers of metal toys. "Dulux" itself, the way in which it is applied, and the close cooperation between Tonka and Du Pont personnel have all contributed to the end result.

"We are immensely impressed with the caliber of Du Pont technical service and the performance of 'Dulux'," says L. E. Baker, president. "Our association has produced a highly efficient production line giving the desired quality appearance and durable finish to our toys."

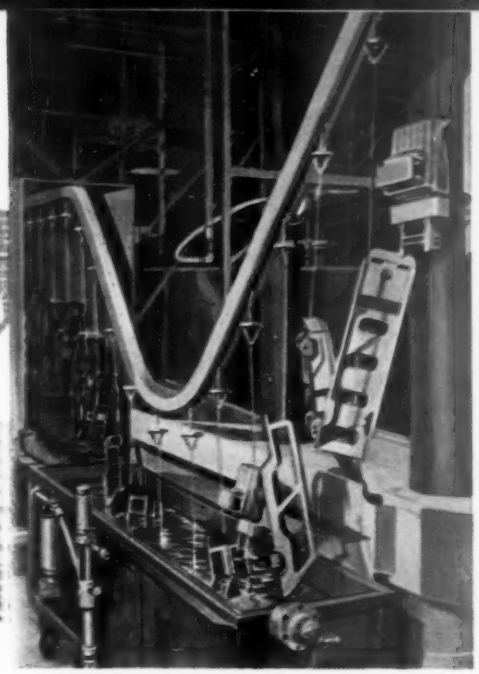
Like Tonka Toys, most manufacturers can benefit by augmenting their own staffs with the kind of experienced personnel Du Pont offers to users of industrial finishes. A depth of experience is available from technically trained Du Pont salesmen and service men, from field service laboratories, from plants and plant laboratories, and from the world's foremost paint research laboratory.

Du Pont specialists have experience in all industry classifications and in all methods of application of finishes. They can recommend systems most likely to solve finishing problems, formulate products to function in those systems, and work on a continuing basis with customer personnel to maintain peak production-line efficiency. *They can help you develop better finishing at lower costs.*

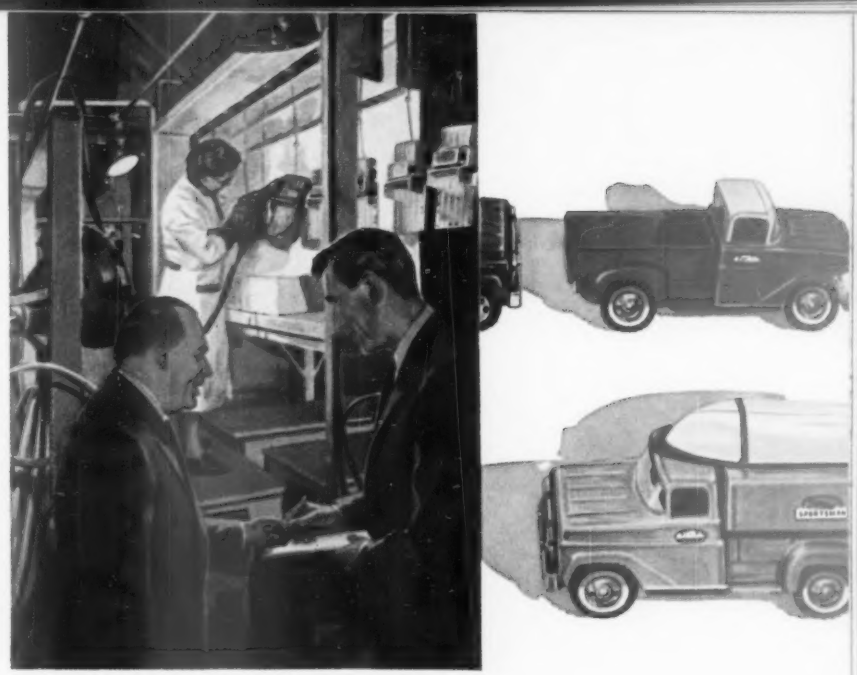
If finishing is an essential part of your production, it will probably pay to call in a representative of Du Pont Industrial Finishes, E. I. du Pont de Nemours & Co. (Inc.), Wilmington 98, Delaware.

DIRECT HIT—but "Dulux" stands up to impact of mallet without cracking or chipping. In this assembly-line operation, plastic windshields are secured by a sharp blow on top of the truck cab.

Du Pont Finishes Service Package—**FORMULATION, APPLICATION,**

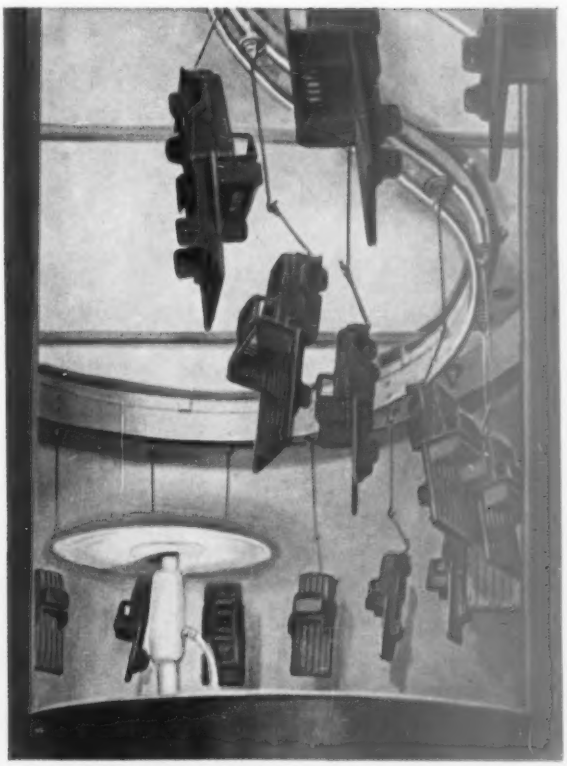


HIGH-SPEED DIPPING with "Dulux" finishes intricate toy components inside and out. Du Pont service men make frequent calls to check all phases of the finishing operations with production personnel. Over 38,000 toy components are painted daily by dipping or spraying with "Dulux".



HAND SPRAYING coats the simpler toy components during peak production periods. Here C. M. Groschen, plant manager (right), and G. W. Giles, Du Pont technical service, discuss paint viscosities for spraying. Refinements in finishing techniques have resulted from such teamwork.

CLOSE COOPERATION IS KEY to success at Tonka Toys. Above, R. L. Wenkstern, vice president in charge of production, points out a design feature to L. E. Baker, president (far right), C. L. Melka, Du Pont salesman (standing), and S. A. Beckstrom, purchasing agent. Solutions to many finishing problems result from such poolings of talent between Du Pont and customers.



ELECTROSTATIC SPRAYING is used for the top coat. A whirling disk flings fine, negatively charged paint spray onto positively charged toy components on conveyor line. Advantages: extra paint thickness on toy exteriors, better appearance. Du Pont recommended installation of this unit . . . developed paint formulations for it . . . helped train operating personnel.

FOLLOW-THROUGH—*Sets Today's Production Pace*

DU PONT

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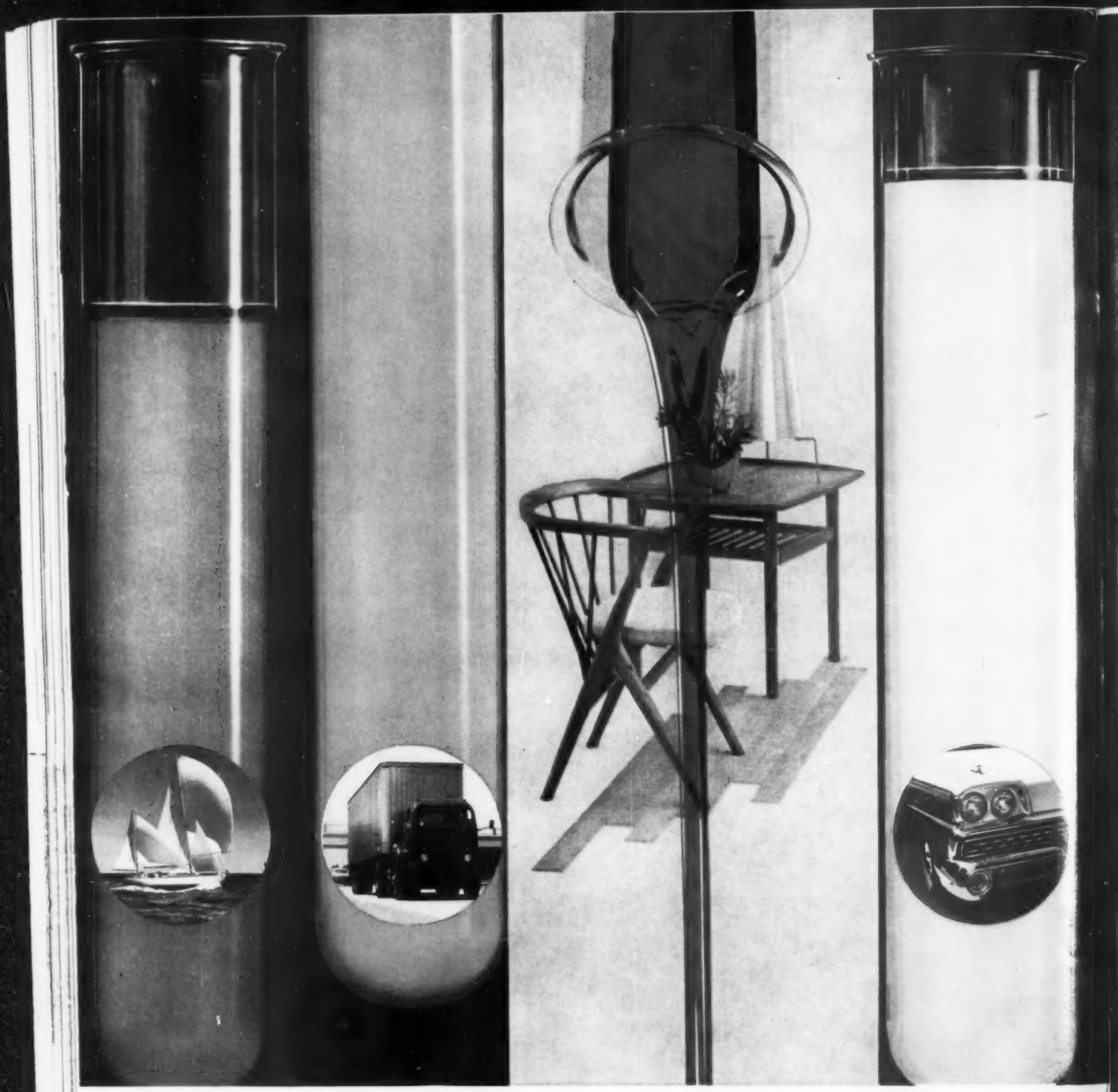

Liquid "nails" that refuse to let go: adhesive magic from research in the six fields of Firestone

Today's exciting new adhesives are fastening one vital part to another in everything from jet bombers to giant buildings. The strongest load-bearing structures, pound for pound, can be joined with Firestone's Loxite and other adhesives. Such modern, high-strength adhesives are lowering costs on modern homes—and replacing rust-prone riveting in new model cars. They're eliminating rivets, stitches and nails in hundreds of modern mass-production applications. From plywood beams to fabric seams, Firestone's adhesive technology is opening new doors daily to improved designs and lower assembly costs. In the broad areas of research and development, as well as in manufacturing, Firestone has continuously served the vital needs of America's growing economy. Making the best today still better tomorrow is a Firestone promise. And it's a promise that's being made good in six major fields of industry: rubber, metals, plastics, synthetics, textiles and chemicals.

Firestone

MAKING THE BEST TODAY STILL BETTER TOMORROW

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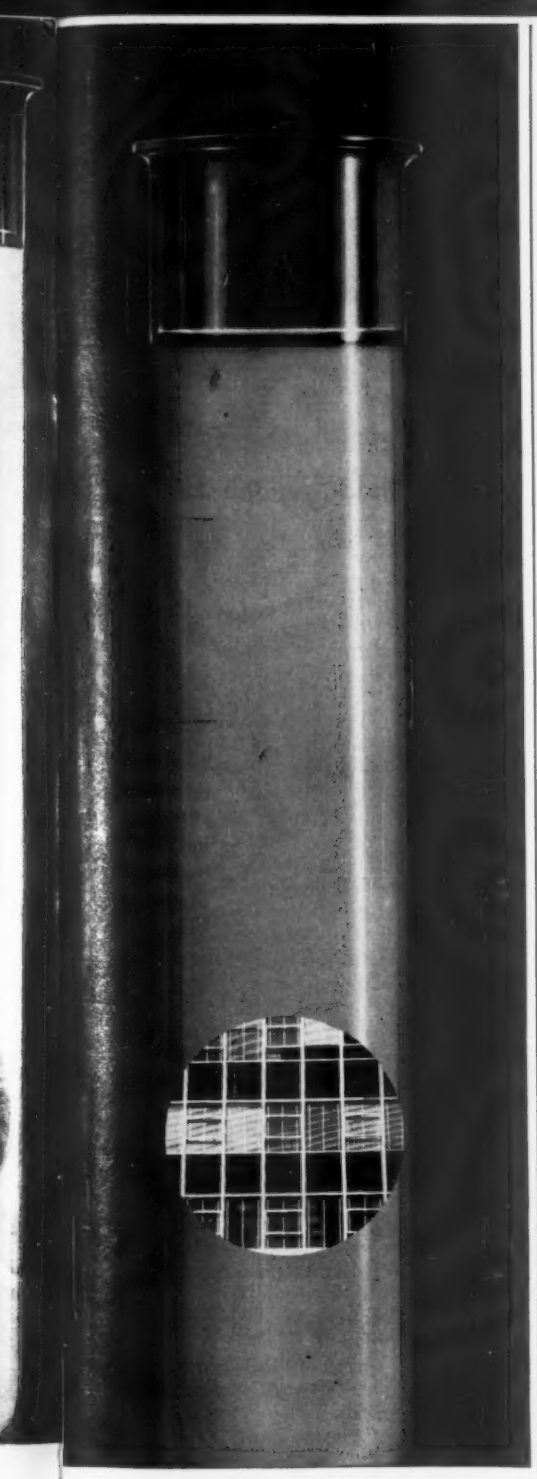
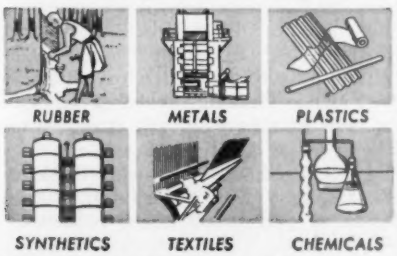


THE SIX FIELDS OF FIRESTONE



With a worldwide network of 66 plants in 19 countries, Firestone is famous for quality in six fields of industry which are vital to the welfare and progress of mankind.

internally. Privately, they probably expected to remold Ford Motor Co.

• **Change of Mind**—Andreson was first to find that Ford wasn't his dish of tea. A native Californian, he prepared to live in that state, so he left before the training period was even over; now he runs a moving and storage company in Los Angeles. Moore was next to realize that working for a big corporation wasn't what he had wanted after all. He wanted his own business, and quit Ford in the spring of 1947. Now he has a string of Ford and Lincoln-Mercury dealerships.

Thornton's departure explains a lot about how Ford was developing. He was the group's leader, both in the service and at Ford. Any dreams the group may have had about really running the company centered on Thornton. Now there was the Breech-Crusoe-Harder hierarchy calling the shots and planning a long, careful development of the Quiz Kids. This wasn't at all the "management environment" that Thornton had envisoned when he made the package deal. So he resigned in the spring of 1948.

After a successful stint as vice-president at Hughes Aircraft, he bought into Litton Industries and has made it a fast-growing electronics firm.

• **From 10, Six Left**—Although it happened nearly 10 years later, Reith left for somewhat the same reason. He rose fast, becoming managing director of Ford of France in 1952. When Ford sold out to Simca he returned to Dearborn, and in 1955 was elected a vice-president and general manager of the Mercury Div.

When the market for medium-priced cars turned sour, Ford collapsed Mercury and Lincoln into a single division under James J. Nance. With his division and his job taken by a relative newcomer to the company, Reith resigned in October, 1957, and became president of the Crosley Div. of Avco Mfg. Corp.

So now the 10 Quiz Kids are only six.

III. How to Grow Management

The six who stayed got a broad education in the automobile business—and under well-qualified teachers.

Since Sept. 21, 1945 there never has been any doubt about who is top man at Ford Motor Co. It is Henry Ford II. But after July 1, 1946, the major business decisions at Ford were made by Ernest Breech—with Henry II's concurrence. The principal executor of those decisions, in all but purely manufacturing matters, was Lewis D. Crusoe. Delmar S. Harder handled manufacturing. It was his job to get new facilities, and Crusoe's to use them to best advantage. And from 1949 on, Theodore O. Yntema has been the fountainhead of economic efficiency. These four had most to do with molding the Quiz Kids.

For several years the young men worked together as a planning and programing group under Crusoe—although they dealt with requirements for manpower, facilities, and money, and the hard facts of cost control. When Crusoe set up the Ford Div. in 1949, their novitiate was over, their education in exercising responsibility just beginning.

• **Up the Ladder**—Take Wright as an example of six men in motion. He went to the new division as assistant to Crusoe. Then he got into the production end of the division's business as assistant general manufacturing manager. Next stop was purchasing in the Ford Div., as assistant general purchasing agent. In both of these jobs, the boss was a veteran.

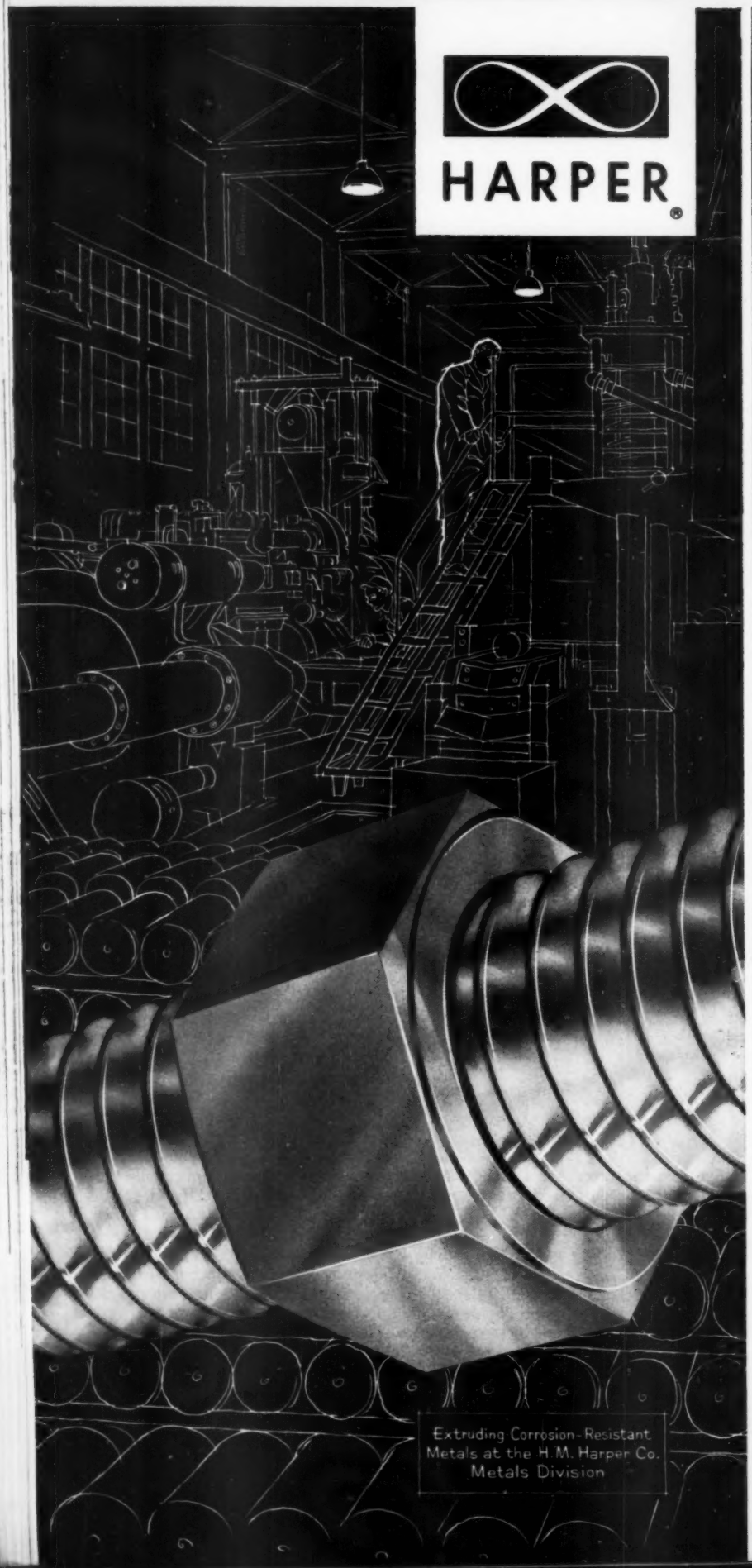
Back to central staff in 1955, he was company director of purchasing. With broad manufacturing and purchasing experience under his belt, he showed up again at Ford Div. in 1956 as assistant general manager—by this time McNamara was general manager of the division. Wright succeeded McNamara when the latter was appointed to his present post.

• **Intelligence, Not Instinct**—Their varied experience in the company hasn't changed their basic character and outlook. Because of their educational backgrounds they never have been business pragmatists; although McNamara and Mills, in particular, have a tendency to be pragmatic regarding socio-economic affairs. They are not auto men in the old-time Detroit context; they are professional management men with an interest in sociology and philosophy unheard of in the hard-nosed auto business.

They are more inclined to apply intelligence than instinct to anything they do—not a bad idea in itself, but car customers notoriously buy by instinct rather than intelligence. While running the Ford Div., McNamara (and Mills, too, at Mercury) was hipped on the idea that by proper detailed analysis of buying habits and economic statistics of an area you could practically pinpoint a dealer's customers and selling would be fairly routine—an idea partly borrowed, it must be admitted, from Crusoe.

Despite this basic concept, however, McNamara has never underrated the importance of dealers.

• **Their Company**—It is the intellectual approach taken by the Quiz Kids that is likely to have the greatest imprint on Ford Motor Co. in the years ahead. The ranks of the teachers have thinned. Crusoe retired in 1957 after a heart attack. Harder retired this year. Breech, now 62, is gently trying to disengage and turn the detailed direction



of the company over to Henry Ford II and the younger men.

The six remaining Quiz Kids all have enormous responsibilities. Bosworth, as general purchasing agent of Ford Div., is involved in buying materials costing billions of dollars a year. McNamara, Wright, and Mills are in charge of the cars and trucks. Miller and Lundy are in over-all charge of cost control. Over the next decade, at least, Ford Motor Co. largely will be the kind of company they make it.

IV. In the Shadow of the Dollar

What kind of company is it today? It is a company still young enough—using 1946 as the base year—to be cast in the image of its creators. That means it is oriented to cost analysis and finance considerations above all others. The most influential builders of the company, Breech, Crusoe (who claims to have inaugurated cost accounting in the automobile industry), and Yntema—and Gossett should be included as a powerful policy voice—have always worked in a frame of dollar signs rather than machines or sales charts.

• **Fundamental Difference**—Structurally, the company resembles General Motors, but behind the organization chart of Ford Motor Co. today there is a philosophy fundamentally different from what is found in the General Motors of today. Look back 30 to 40 years, however, and you see the outlines of a remarkable parallel.

In the early years of General Motors after 1920, its dominant men were specialists in finance and management—Pierre du Pont, Alfred Sloan, John J. Raskob, Donaldson Brown, John Lee Pratt (BW—Apr.18'59,p142). It was not until years later that the type of executive who has recently been preeminent in GM—the manufacturing man, the engineer, the salesman—came into prominence.

What the present-day GM executive knows by rote—thanks to the drilling of his corporate ancestors—the present day Ford executives are proving by charts and statistics. Oversimplified, at GM the dominant objective is higher sales, grounded on a philosophy that high volume itself maintains a favorable profit-to-sales ratio—for production efficiency was bred in years ago. Again oversimplified at Ford the rule is that low production cost will permit a low enough selling price to get satisfactory volume.

• **Finance Training**—Whether the type of man running Ford will change over the years—as the type of man running GM changed (although with Frederic G. Donner GM once again is in the hands of a finance-oriented executive)—is doubtful.

The principal training ground for management at Ford still is the finance

office. For years it has been signing on and fanning out through the company intellectual twins of the Quiz Kids: for example, Tom Lilley, 47, vice-president and general manager of the International Div., who went to Ford in 1948 when he was 36; Robert J. Hampson, 42, general manager of the Transmission and Chassis Div., who was 30 when he joined Ford in 1947.

• **New Leader**—Another reason for doubting that such a change will take place is the character of today's young men, who should be around for a long time. Their leader, both on the organization chart and by common acknowledgement is McNamara. San Francisco-born, he was graduated from the University of California with a degree in economics and philosophy. In 1939 he got a master's degree in business administration from the Harvard B. School. (He also has an honorary doctor of laws from the University of Alabama.) He taught at Harvard before entering the Air Force.

A man of wide-ranging intellectual interests, he has a mental brilliance that impresses even the other Quiz Kids. An innate shyness is often mistaken by lower echelons for sternness. That, combined with an unalterable determination for company (not necessarily personal) success, makes him a bit more feared than adored by underlings.

Actually, he's a man of considerable patience with those who can't follow his rapid mind, and with an understanding of and sympathy for the problems of employees—years ago he served a brief spell as a union organizer on the West Coast.

• **Group, Not Clique**—While Ford is still largely the reflection of Breech and Crusoe, Henry II and the Quiz Kids are making their own indent. McNamara, Mills, Wright, Miller, and Lundy have worked together so long there is unusual rapport—which has a disadvantage as well as an advantage.

The disadvantage quite obviously is the notion that the Quiz Kids are a clique—if you don't belong your path is blocked. That opinion persists in some lower ranks despite the example of Reith's departure, and the objections of the Quiz Kids themselves who are well aware the idea exists.

• **Accent on Youth**—The other major characteristic that makes Ford the kind of company it is plainly is the youth of its management. That worries no one at Ford. "We used to say," Crusoe recently explained, "'don't worry about him being young; we'll take care of that pretty fast.'" It certainly doesn't worry other close observers of the Detroit scene. Says a man who knows intimately all the auto companies and their management: "Just give those fellows at Ford a few years to mature and nothing can stop them." END

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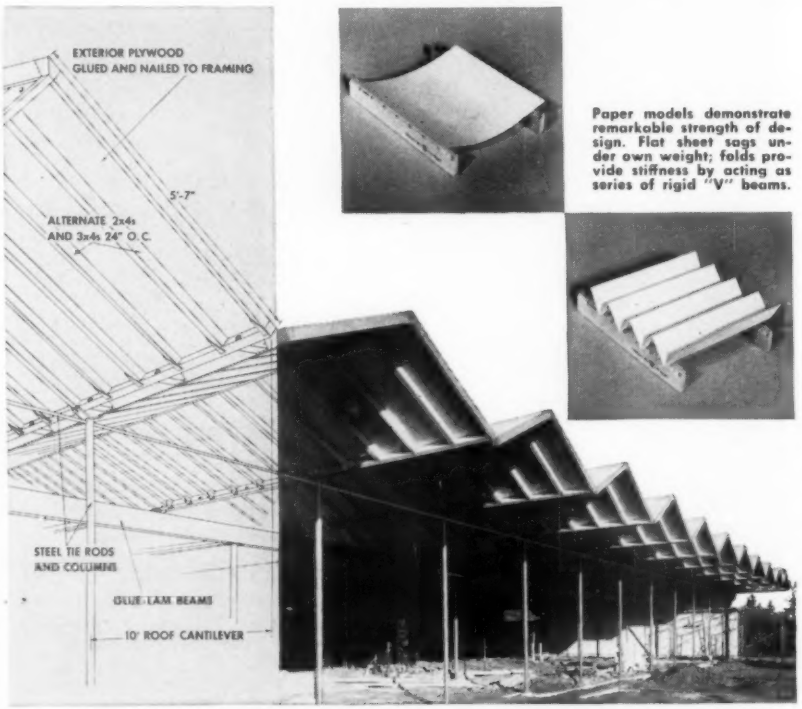

Paper models demonstrate remarkable strength of design. Flat sheet sags under own weight; folds provide stiffness by acting as series of rigid "V" beams.

Strength from shape—not mass—is the key to this precisely engineered fir plywood folded plate roof. The plywood plates are stiffened with light lumber framing and act in pairs to form a series of giant "V" beams.

Stronger, yet less expensive (by 20 per cent or more) than conventional joist or truss construction, fir plywood folded plate roofs are ideal for warehouses, stores or other buildings that require large, clear floor areas. Depending on design, the system permits clear spans of 50 feet or more.

In the 14,000 sq. ft. shopping center shown here under construction, plywood roof components were fabricated on the ground using common labor, and installed by a 6-man crew in less than nine hours. In-place cost came to less than 80c per square foot.

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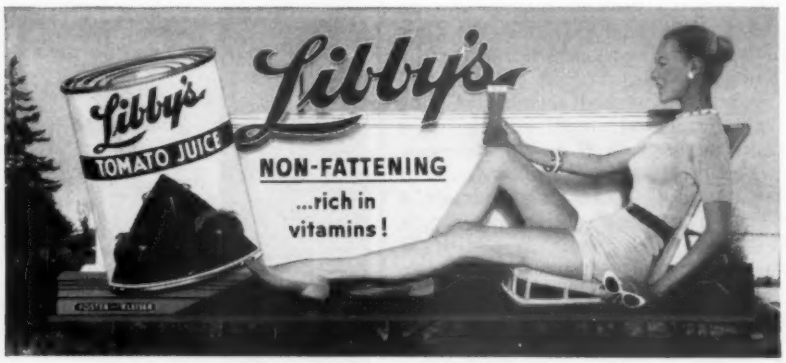

Giant overlaid plywood cut-outs add real impact to outdoor advertising. This giant bulletin produced by Foster & Kleiser, San Francisco, for Libby's is being rotated in key West Coast markets. The plywood cut-outs are light, strong, and easy to fabricate. The medium density resin-fiber overlay is fused to the panel during manufacture to form a smooth, durable surface for quality paint finishes. The overlay is completely waterproof and has a slight "tooth" for better paint adhesion.

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RESEARCH

Tunneling a Base in Arctic Ice

● **U. S. Scientists and Army Engineers are working together on what will become a buried base in north Greenland, tied to Thule by a 138-mi. under-ice road.**

● **Researchers are picking up knowledge as they go on the quirks of ice, notably that it behaves more like a vicious liquid than a solid.**

● **Probably, the base will get its power from a nuclear plant, if Denmark consents.**

In the immense mass of ice that covers northern Greenland, a mixed team of U. S. scientists and Army Engineers is burrowing busily on a dual project:

• The building, or rather carving, of an experimental 100-man camp under the ice, destined eventually to be the model for permanent missile bases squarely athwart the polar airlines of attack between the U. S. and Russia.

• Research into the nature of ice—a substance that looks like a solid but behaves more like an extremely vicious liquid, although ice is too ornery even to obey the tidy rules of flow that govern true liquids.

The two purposes are deeply interlocked. The research is needed to find the best ways of building military under-ice bases. And the base provides a fine pragmatic field for ice researchers.

• **138-Mi. Road**—The base is a startling project. Called Camp Century, it will lie 138 mi. from Thule Air Force Base, to whose Camp Tuto it will be linked by an under-ice road, vented only for air and escape hatches. Tucked away under the ice, relatively safe from attack and from the merciless weather and shifting conditions of the surface, will be labs for the Signal Corps, the Medical Corps, and the Quartermaster Corps, along with a 10-bed hospital with operating room, warehouses and shops, a recreation room, all necessary living quarters—and probably a small atomic reactor to supply heat and electric power to the establishment.

Construction now and maintenance after the completion target of late 1960 will be handled by the Engineers' newly created Polar Research & Development Center. But for some time thereafter the population of the base will be mostly scientists.

• **Russian Lead**—As for the research, U. S. scientists have a long way to go to catch up with the knowledge of ice possessed by the Russians, who have been moling about in Arctic ice for many years. What our people know has mostly been picked up in the last five summers in Greenland; this winter will be the first in which the work will be pressed right on.

Before Camp Century—and more bases to follow it—can be perfected, we will have to learn vastly more about the strengths, foibles, and general habits of ice in wholesale lots.

The work being pressed now is on something of a trial and error basis, taking off from the smattering of knowledge already acquired and, it is hoped, getting better as more is learned from the work in progress.

• **Glaciers Shunned**—The construction party has already picked up some valuable knowledge from research teams that have gone before. It knows that it is far better to work in superimposed ice—the layer built up by storms, thawings, and freezings atop the glacier—than in the body of a glacier itself. Glacial ice is frequently raisined with rocks, and rocks are anathema. They are dangerous, causing changes in the ice structure that will surely bring eventual deformations in the carefully carved out tunnels and even threats of thawing. And they play hob with the modified coal cutters and continuous miners used in boring. Even without rocks, glacial ice is less hospitable to tunneling humans, apparently because its crystals line up regularly, instead of helter-skelter as in superimposed ice.

• **Deep Enough**—Of course, there is a limit to the depth of superimposed ice available for military borings. But the Engineers figure that in a large part of the Arctic ice cap they will have a depth of about 150 ft. to work with. Core drilling can establish whether any particular spot is suitable or not.

Even so, the strength of the superimposed ice will vary according to such factors as the size of the grains that make it up and the amount of air bubbles it contains. These variants can be established only by trial and error, since they arise from the long-past origins of the ice. Incidentally, experience up to now indicates that a certain amount of movement in the underlying glacier will not damage the installation in the superimposed ice above.

• **How to Dig**—As for the actual work of tunneling, quite different techniques have been developed for road building and for carving out living quarters under the ice.

In road making, a rotary plow cuts a narrow trench in the surface ice, and then works downward with steadily widening cuts, until a sort of inverted V has been scooped out of the ice. At the same time, the plow throws up the ice cuttings into the narrow opening at the top, where they freeze and ultimately form a solid and enduring roof.

The upsidedown V technique is needed because of the peculiar molasses-in January plasticity of the solid-seeming ice. If you cut a true V, the ice would tend to "flow" in at the bottom and squeeze the passage out of all shape.

The best time yet achieved by the engineers in this work is to cut a trench 22 ft. deep and 22 ft. wide at a rate of 5 mi. per day. Thus, even with perfect conditions, it will take more than a month to build the road from Camp Century to Tuto.

• **Like a Mole**—Carving out living quarters is a wholly different matter; here the methods of the mole are brought to bear. After what is fondly hoped to be suitable ice has been found, the usual method is to run a down-sloping tunnel into the side of an ice mountain. At the desired depth, a main tunnel is bored out, and then the side passages and the rooms themselves. So far, at Camp Century, a 1,000-ft. main tunnel has been bored, and one of the "side-street" laterals.

Converted coal mining machines are being used for most of this work. The most effective single ice-breaking found so far is a compressed-air jackhammer with a solid spearhead-type bit. Attempts to use conventional explosives have been unsuccessful so far, since the structure of the ice seems to send the entire blast upwards. Other types of explosives will be tested this winter though. Just plain saws and picks probably do the work more neatly than the fancier methods, but they still take longer.

A peculiar thing that has been noted regarding the use of all types of drilling equipment under the ice is its resistance to wear. Researchers have used some

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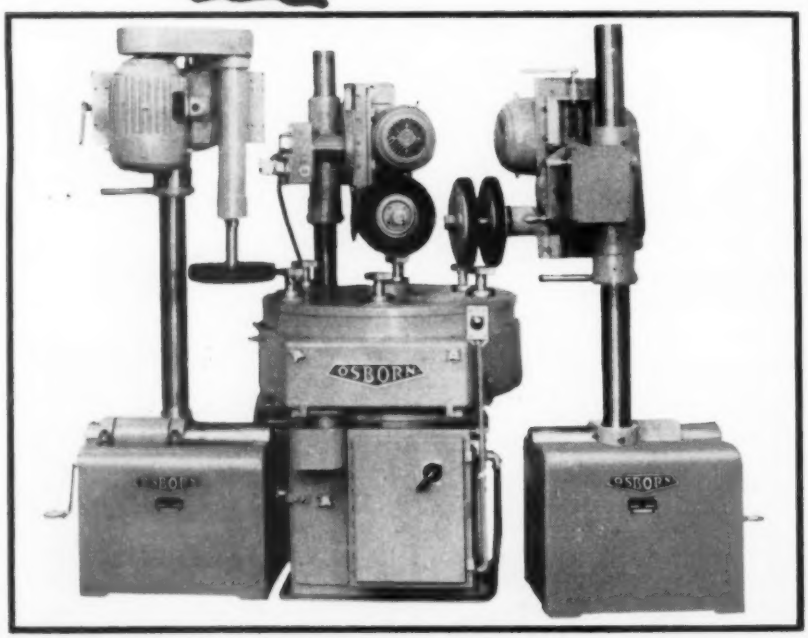

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drill steels for two years without resharpening. Freezing or sticking in the earth rarely occurs.

Cracks in the ice of the cut constitute a major threat, both to the diggers and to those who will live in the under-ice camp, though. That's because the inevitable "flow" of the ice will push the walls of the tunnel together, and in pushing will pull the sides of the crack wider and wider apart. This dangerous tendency is accentuated if additional cutting to enlarge the tunnel or room is done after a crack has appeared.

• **Pushing In**—That constant pushing in of the walls is expected to be a major maintenance problem at Camp Century, although it is not yet known how much "shaving" will have to be done. If the wrong sort of ice has been cut the whole structure may become gravely deformed.

Keeping supplies in the under-ice camps is expected to be no problem at all. For four winters, the engineers have been packing ice caverns with perishable foods, storage batteries, fuels, and other essentials—without any deterioration at all. Aviation gasoline and diesel fuel have lost nothing by seepage or evaporation.

Of course, if an atomic reactor is used to supply power, the bulk of the supply storage problem will vanish. Permission is being sought from Greenland's Danish rulers to put in a power reactor. And earlier this year, the Defense Dept. announced it was working on a portable, prefabricated 1,500-kw. nuclear power plant to supply heat and electricity in remote areas. Some observers think this reactor will be shipped to Camp Century, perhaps by the end of October. It is expected to operate for 12 months on a 10-lb. core of Uranium-235.

Compared to other kinds of power, atomic power on the polar ice cap would be relatively cheap. Cost of fuel oil, f.o.b. Greenland, would probably run about $53 a barrel.

• **Industrial Potential**—Up to now all this work on Arctic ice installation has purely military purposes. But the Army argues that its findings can someday be important to industry and for other peaceful purposes:

• Sooner or later, mining companies will be digging in both the Arctic and the Antarctic, and will be in dire need of information gleaned at Camp Century.

• The government is interested in the possibility of storing excess food supplies under the polar ice. Carrying the food to the Arctic would be easy compared with existing methods of coping with surpluses.

• The oil and chemical industries could benefit by under-ice storage of liquid raw materials.

• For the construction industry, there is a whole new market to explore. **END**

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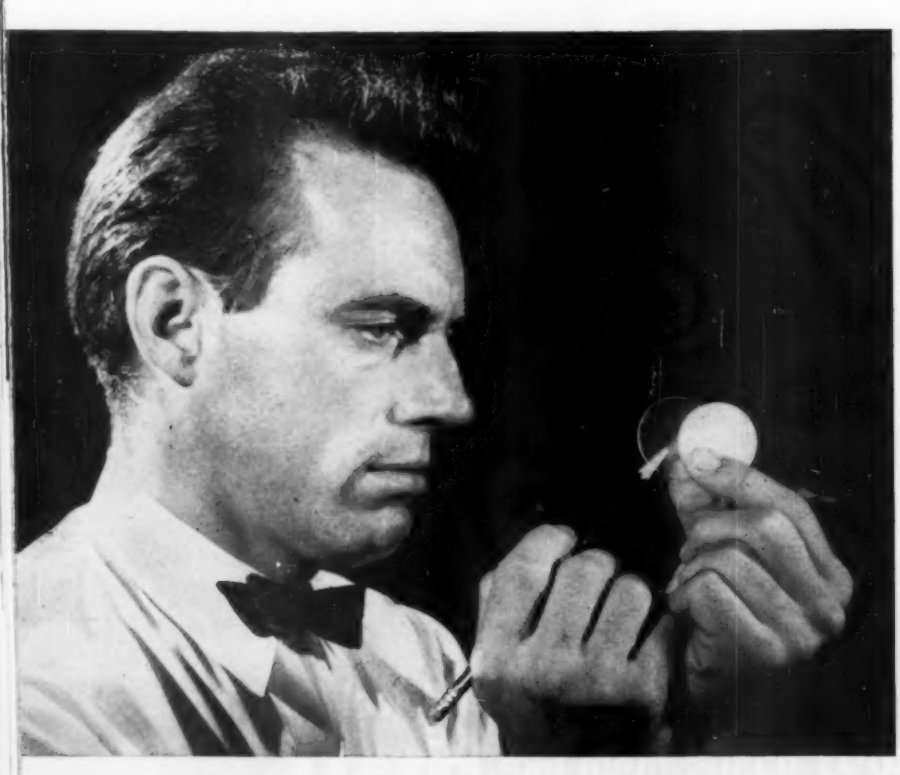
New Class of Ceramics Bows In

GE's new ceramic withstands heat better than quartz . . .



. . . and, unlike ordinary ceramic, is very translucent.

Polycrystalline ceramic developed by GE has high heat resistance, translucency. Cal researchers find clue to ductility.

Scientists are hot on the track of a new class of engineering materials that promise to have a tremendous impact on industry. The materials are polycrystalline ceramics. They are important because they can withstand temperatures far above the point at which the super alloys of metals melt. And they can resist high temperatures even in atmospheres that would oxidize such hardy metals as tungsten and molybdenum.

Except for chipped stones, ceramics are probably the oldest of production materials. The fact that wet clay, brought up to a moderate heat, is converted into a hard durable material has been known for thousands of years; the art was perfected early and hardly changed until the last few decades except in such things as the improvement of firebrick for lining high-temperature furnaces.

But, since World War II, need for materials which can resist higher temperatures than metals can has produced a fresh look at ceramics. The meaning of the word has broadened: Clay is essentially aluminum oxide, and nowadays oxides of any metal are considered as possible material for a ceramic. Beyond that, research now pokes closely into the crystalline structure of the clay or other oxide used—the geometrical patterns in which the molecules are arranged.

Refractory ceramics would be well-suited for ultra-high temperature use except for brittleness. In addition, most ceramics have been hard to fabricate and have been unable to transmit light.

• **Breakthrough**—Now, however, scientists at General Electric Research Laboratories in Schenectady and at the University of California are making definite progress in adapting polycrystalline ceramics to both industrial and military uses. Full-scale production of the new materials is still a year or more away. But it seems reasonably certain that small quantities of the materials will be available in test lots, for experimental purposes, sometime soon.

General Electric's experimental polycrystalline material is called Lucalox. Dr. Guy Suits, GE vice-president and director of research, reports that its development marks the first time that a polycrystalline material made from

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How to pull a quarry out of a quandary

How do you pull up production to meet the demands of a rapidly expanding economy? That had a top Eastern cement maker in something of a quandary—especially when it came to getting the heavy limestone out of the pit in easily handled, crushed form.

Company engineers were on the right track when they decided to replace the old crusher with a larger, more efficient version and to move it right down to the pit floor. Then the already crushed stone could be hauled out by a special, rayon-muscled Style B Conveyor Belt—recommended for the heavy tonnage and steep 200-foot lift by the G.T.M.—Goodyear Technical Man.

So the bottleneck was broken with the installation of the G.T.M.'s 1,442-foot belt. In fact, it easily brings out up to 50,000 tons a month—has been doing it for 3 virtually problem-free years now. That's a *50% better production* than the previous system could have even hoped to handle.

If you're in a hole with a production problem as tough as this one, maybe a conveyor belt like this is also your answer. Just ask a real belt specialist, the G.T.M.—by contacting him through your Goodyear Distributor or writing Goodyear, Industrial Products Division, Akron 16, Ohio.

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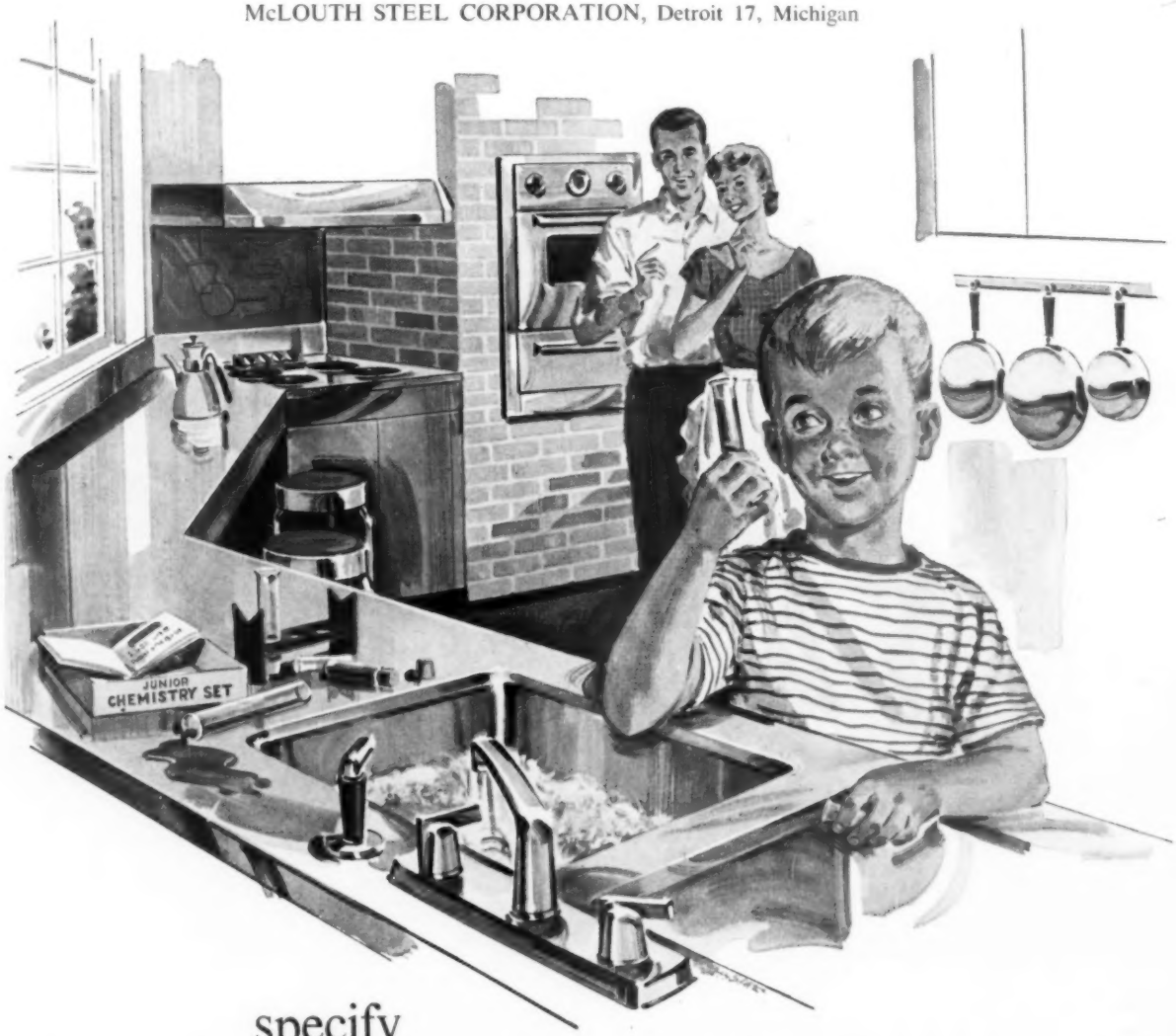

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powders has been able to transmit light. In addition, Lucalox possesses the extremely high strength characteristic of alumina ceramic materials, can withstand much higher temperatures than most ceramic materials now in use, and can be pressed into any shape desired.

• **Varied Properties**—Physically, Lucalox closely resembles sapphire and ruby gem stones, which, to the chemist, are single crystals of aluminum oxide. But GE's many-crystalled version of the aluminum oxide is superior to the gems because it can withstand higher temperatures without deforming. Essentially, the manmade material has the composition of a ceramic, the structure of a metal, and is almost as translucent as glass.

The secret of Lucalox, according to Dr. Suits, is the removal of microscopic pores or "bubbles" that are normally found between the crystals of aluminum oxide in ceramic materials. Because of the elimination of the pores (once thought impossible), it is possible to read through a sheet of Lucalox when it is laid flat on a piece of paper.

• **Applications**—The prospects for commercial application of polycrystalline ceramics are good. For example, it may be possible to use the material for making high-intensity incandescent and discharge lamps, which now are limited by the level of heat resistance of their transparent envelopes. Fused quartz, which often is used for high-temperature lamps, performs satisfactorily up to 1,800F. Lucalox, however, is stable at temperatures close to 3,600F.

The military uses of such a material are virtually limitless. One of the first is likely to be for infrared lamps that are used to test the heat resistance of missile nose cones and other space vehicle equipment. Polycrystalline ceramics also should have a great potential as an electric insulating material, and as a replacement for gem bearings in delicate instruments.

• **Ductility Problem**—The problem of overcoming brittleness in polycrystalline ceramics has not been completely licked yet. But scientists at the University of California have worked out one possible solution, at least theoretically.

Initial work to prove that ceramic crystals could be made ductile was extremely difficult. But the California research team, led by Carl R. Parker, professor of metallurgy and director of the Institute of Engineering Research, was eventually able to ferret out at least one class of ceramic materials with inherent ductility.

• **Research Results**—Taking a single large crystal of potassium chloride, the researchers split off each of its faces with a chisel. The remaining crystal could be bent, appreciably, by hand.

But this was true only when the crystal was freshly split; after about one minute of exposure to the air it became brittle again.

After intense study, Parker and his colleagues discovered that the brittleness was brought back by nitrogen and oxygen, reacting with high points of stress on the crystal's surface. They found that if they placed ductile, freshly shaved ceramic crystals in oil, argon, or a vacuum, they retained their ductility.

The maximum ductility the researchers have achieved so far is with a polycrystalline ceramic made up of magnesium oxide. They have been able to bend its surface as much as 20% without breaking.

This doesn't come close to the ductility of certain metals and alloys. Steel, aluminum alloys, and copper alloys can be stretched 40% in similar tests. But it's a tremendous step forward compared to what researchers thought possible with ceramic materials a few years ago. And the California team is hopeful it will have greater success with taking more of the brittleness out of polycrystalline materials in its continuing studies.

• **Production Difficulties**—Next year, the California researchers plan to start work on methods of fabricating ductile polycrystalline ceramics. Present methods probably can't be used on these materials. Fabrication of the new materials probably will involve a very high purity and chemical treatment of the ceramic crystal material. In addition, each crystal in the polycrystal aggregate will have to be extremely small, in the micron range, in order to keep dislocation to a minimum.

Dislocation is the metallurgical term describing an interruption in one of the planes of atoms in a crystal lattice. Dislocations create stress, and if the stress becomes too high a crack develops. Surface impurities also cause dislocations.

Production of Lucalox will not be a simple matter, either, according to General Electric engineers. Production specifications call for use of extremely fine-grain, high-purity aluminum oxide, or alumina. This powder can be pressed at room temperatures, but it must be fired at temperatures much higher than is usual for ceramic materials.

• **General Import**—Despite all such engineering problems, researchers are convinced that most of the roadblocks have now been cleared along the path toward successful commercial production of the polycrystalline ceramics. Moreover, some of the research results, gained in developing high temperature-resisistant, ductile ceramic materials is certain to prove of immense value to an understanding of the behavior of all other solid materials, too. **END**

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• • •

X-15 Rocket Reaches 50,000 Ft. In First Flight Under Own Power

X-15—the rocket vehicle designed to carry man to the edge of the earth's atmosphere and perhaps a bit beyond—last week made its first flight under its own power.

Carried to 38,000 ft. above Edwards Air Force Base in California by its mother ship, a modified B-52, it was released and climbed on its own to 50,000 ft., coming in to land 10 min. later. Scott Crossfield, test pilot for North American, the builder, was at the controls.

Its top speed was not revealed, but observers estimated something in excess of Mach 2. Officially, X-15 was designed to climb 100 mi. and to top 3,600 mph. But trade circles have said it would try for a 200-mi. altitude and speeds up to 4,500 mph. Similarly, the Air Force has disclaimed any intention of making X-15 an orbital vehicle, yet even conservative estimates of its capabilities indicate that little more effort would be needed to get it into orbit.

Primarily, X-15 is designed for research in the aerodynamics of high-speed, high-altitude aircraft. It will be used to probe the aerodynamic heat barrier that affects space travel, stability under different gravitational conditions, related problems of control, and the problems of manned flight at such altitudes and speeds.

• • •

British TV Camera Uses Sound Waves To Study Internal Structure of Materials

The prototype of a television camera that uses sound waves instead of light waves to examine the internal structure of materials or biological specimens has been developed at London's Northampton College of Advanced Technology. It's designed chiefly as a research tool; no date has been set for commercial development.

The trick is to replace the light-sensitive surface of an ordinary TV camera with a sound-sensitive quartz receiving surface. The specimen to be studied is placed in an ultrasonic field—sound waves too high for the human ear—and then immersed in water. As the sound waves hit the specimen, an "image" is formed, because each point of the specimen reflects a sound wave of a different intensity.

The quartz receiver, on each point of its surface, develops a voltage proportional to the intensity of the sound wave. The value of this voltage is scanned point by point and amplified to control the brightness of a TV receiver and so create a visual image, just as the electron stream does in a conventional TV.

• • •

High-Speed Radio Communications Ride Coattails of Meteor Trails

An experimental radio communication system using meteor trails for two-way transmission has been developed in the National Bureau of Standards lab at Boulder, Colo. Speeds of up to 4,800 words per minute have been achieved in the program sponsored by the Air Force Cambridge Research Center.

The system is the result of NBS' three-year search for new methods of **one-range communication to relieve the congestion in the high-frequency radio bands.** Earlier, the same quest produced the system called "Forward Scatter Propagation."

The new system takes advantage of the millions of tiny meteors that enter the earth's atmosphere every day, only to be burned up before they reach the ground. In the lower reaches of the ionosphere, some of the meteorite material is vaporized by the heat of air friction, creating a trail of electrons and ionized atoms up to 15 mi. long. Radio signals are boosted when they strike these trails.

Since meteor trails are transient, they can't be used for continuous radio transmission, as Forward Scatter can. **But the method needs less power and smaller antennas, has a wider spectrum, and offers greater security against jamming and other interference.**

To be practical, the system will have to learn to operate intermittently at very high speed, and must be triggered to swing into action automatically when a meteor is available.

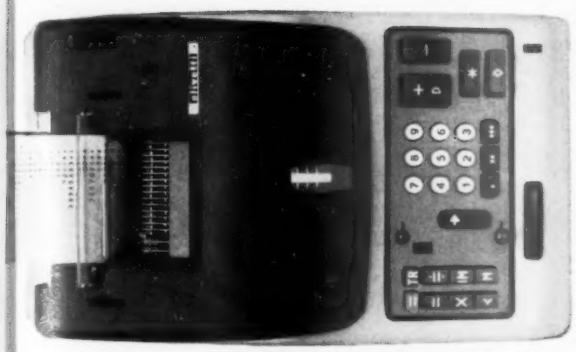
• • •

Isolating of Trachoma Virus Strains Brings New Hopes for Immunization

A major step in the fight for immunity to trachoma—a virus disease causing impaired vision or even blindness—has been announced at Harvard. Trachoma is found all over the world, but most cases occur in tropical or subtropical areas.

The five-year research, largely financed by the Arabian American Oil Co., has **succeeded in keeping alive mice inoculated with live trachoma virus that had been rendered inactive by chemical treatment.**

Another team has been able to isolate two different strains of a particularly potent trachoma virus that occurs in the Middle East.



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Conventional cleaning methods using expensive solvents could not do the job for us—and were extra costly due to the resulting rejects, disassemblies, re-cleanings and re-assemblies. Research by our Pioneer-Central Division developed the most efficient answer by applying sonic energy to the problem. Today, in hundreds of industries, Bendix Sonic Energy Cleaners are getting precision parts over 99% clean in seconds—and at cost savings up to 83%.

Under this method, high-frequency sound waves are activated through an inexpensive water-detergent solution containing the parts to be cleaned. A furious "scrubbing" action results that reaches gently into every crevice of every part and removes even the tiniest, most stubborn particles of contamination from metal, glass, rubber, plastic, electronic devices and ceramics.

At our Sonic Energy Cleaning Applications Laboratory, we use radioactive "detectives" to prove the effectiveness of this cleaning method. First, parts are smeared with contaminants containing radioactive isotopes. These parts are checked by Geiger counter before cleaning to determine their degree of radioactivity (i.e., contamination). Their degree of contamination after cleaning is also noted, and the difference between the two readings tells the story of cleaning effectiveness obtained.

So amazing are the cleaning results achieved that there has been a rapidly increasing use of Bendix Sonic Energy Cleaning Systems. Hospitals, too, are using them to get surgical instruments much cleaner than ever before possible—in less time and at lower cost. The result is that Bendix has become the country's largest manufacturer of such systems.

To learn if this cost-cutting tool can be applied effectively in your business, ask for the report, "How to Appraise Sonic Energy Cleaning". Write on your letterhead to: Pioneer-Central Div., Bendix Aviation Corp., Hickory Grove Rd., Davenport, Ia.

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● **Inventions find their way to market through the help of the new products scouts.**

● **Now, with manufacturers clamoring for new ideas to increase sales, many product hunters work on company retainers.**

● **Instead of waiting for the mail to bring a brainstorm, they sign up research labs and proved inventors.**

A new kind of matchmaker is at the service of U.S. industry today—the new product scout. His function is to wed the originators of new ideas to companies that want the ideas.

The breed isn't entirely new. Various product development outfits, new product clearing houses, and research institutes have been in the business for some time. But, in the past, they often depended mainly on the U.S. mails to bring the ideas in. The ideas came in, all right, by the thousands, but far too many were from cellar and attic inventors of impractical devices impossible to market—the perpetual motion machine is the classic example always cited in the trade. Out of more than 100,000 inventions examined in eight years by the now-defunct Institute of Inventive Research at San Antonio's Southwest Research Institute, only 114 had any merit. Of these, only four ever reached market.

The cost in time and money of studying such a flood of ideas—and developing the likely few—was so steep that new product agents could seldom make ends meet. The Institute of Inventive Research spent $800,000 in its eight-year life, and the four brainchildren that finally went into production came nowhere near paying this back in royalties. The situation was aggravated by the speculative approach most product hunters took: They looked first for a salable invention, then tried to corral a manufacturer.

• **A Surer Way**—The new product scout's work isn't nearly so hit-and-miss any more. He focuses his searching for ideas on proven pay dirt—known inventors, specialists in strategic fields, small companies with imagination, university research laboratories. Or he ransacks the files of companies with big research operations for unused inspirations. This vastly improves the chances of finding profitable ideas.

At the same time, the agent insures himself an outlet by tying up in advance with companies that crave new products. Such companies are willing to pay a handsome fee or retainer; for the sake of a few good items to add to their lines, they defray the product hunter's expenses of evaluating hundreds of other ideas.

• **Avid Customers**—With a boost from these more surefire techniques, the business of seeking new products is suddenly launching on a mild boom of its own. As the trend grows, existing outfits are adding clients—and revenues—and new organizations are opening shows. The federal government's Small Business Administration is also offering new product services.

The reason, basically, is the hunger of companies for a successful new product. A real innovation can bring all sorts of corporate cheer—dazzling sales and profit surges, healthier product lines, diversification that might otherwise not have been possible. U.S. manufacturers figure that 12% of sales in 1961 will be new products, according to a survey of capital spending plans by McGraw-Hill's Economics Dept. Innovations will play the most sensational role among makers of transportation equipment, where the switch to jet aircraft will be mainly responsible for giving new products 42% of the sales dollar. Other leaders will be machinery with 22%, metalworking equipment with 13%, and chemicals with 12%. In these four industries, new products have accounted for 50% to 80% of all new sales revenues over the past five years, management consultants Booz, Allen & Hamilton report.

• **Still Some Individuals**—Of course, more and more companies maintain their own research establishments to hunt new products. Often these layouts are opulent indeed; among the gleaming research palaces are General Motors' Technical Center near Detroit and Bell Telephone's labs at Murray Hill, N. J.

But the inventor in the basement workshop, the small company engineer, and the university researcher still produce worthwhile ideas. Prof. Daniel Hamburger of the University of Maryland told the Joint Congressional Committee on the Economic Report this year that 70% of the economically important inventions brought out in the last 10 years came from independent inventors and small business.

Companies want these ideas, but in most cases it's impractical to set up a department of their own to screen them. The job is expensive and risky, because of the legal complications of handling other people's inventions (BW—Nov. 16'57,p187). So they are happy to hire the new product hunter.

This way, the manufacturer gets many of the advantages of a research and development department for the relatively low cost of the searcher's fees and royalties. The searcher has all the work and the legal worries; the company, if it's lucky, gets a good invention.

• **Other Assets**—The inventor profits from this setup, too. He's sure that qualified people with markets in mind will be scrutinizing the product of his genius. If the idea is accepted, he usually doesn't have to invest any more of his own money in development.

As for the product hunter, he gains in several ways from having sponsors. He has a sense of direction in his search. If he knows the client's needs well, it's easier to spot products that will fit in. Since he works on a retainer, he can afford better staff members and facilities. This means better technical development, market searching, and planning of the product—which gives it a better chance when it hits the market. This, in turn, improves the agent's prospects for long-term profits, since the license arrangement on a new product usually gives him a percentage of the future sales take.

• **Outmoded Approach**—The new, closer relationship between product scout and manufacturer is rapidly replacing the older free-for-all methods. For example, the city of Rochester, N. Y., has dropped the new product clearing house from its Dept. of Commerce. The program was highly popular with inventors—in five years, more than 50,000 ideas were submitted. But only two dozen had any commercial promise, and only seven were ever produced and sold—not enough to justify the expense of the program. The Chicago Chamber of Commerce's New Products Council drowned in a flood of inventions, almost all of them impractical.

The Southwest Research Institute has junked its Institute of Inventive Research, now analyzes or develops inventions only on a fee basis. "Costs got

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completely out of hand during the eight year IIR was in existence," says Richard R. Woodberry, who was its director.

• **Varying Tacks**—Within the new breed of new product hunters there are differences of approach and sponsorship.

Typical of the individual entrepreneurs in the field is John F. Rockett, president of Boston's Product Development Corp. (BW—Feb.9'57,p86). Since 1957, Rockett's stable of clients has expanded from 12 to 20—among them some of the nation's largest corporations. Rockett claims that he has been adding several new clients a week recently.

For a flat $20,000 a year or $5,000 a quarter, PDC will screen ideas and present complete product proposals tailored to the client company's facilities. If the manufacturer buys an idea, he must do his own bargaining with the inventor for a license, but PDC gets 1% of gross sales. Rockett says licensing revenue has quadrupled from $1,500 in 1956 to $6,000 in 1958.

One achievement at PDC has been to shave the cost of opening the mail and writing rejection letters to $1.50 per inquiry—an important economy in an outfit that is offered around 1,500 inventions a week. Rockett estimates that only 1 out of every 2,000 unsolicited ideas has any merit. For solicited ideas, however, the ratio rises to 4 out of 100. This is why PDC is arranging to tap the talents of university research labs and inventors and engineers of proved ability.

• **Community Effort**—By contrast with PDC, the Mohawk Valley New Products Clearing House in Utica, N. Y., is a non-profit organization. It was formed last spring by a group of Utica businessmen and educators hopeful that new products would make more jobs for the community—and bring more sales dollars into local tills. Twenty member companies are entitled to bid for ideas that pass a screening committee; if they buy, the clearing house gets royalties based on sales and passes on two-thirds of it to the inventor. The Utica outfit is strict in insisting that it wants to look only at ideas with quality. In its first five months, the screening committee considered 150 worthwhile inventions and approved half of them.

In Los Angeles, 30 manufacturers of everything from wheelbarrows to missiles belong to Associated Specialists, which solicits and develops new products specifically for the members.

• **Dormant Ideas**—In the last three months, several organizations have sprung up to exploit unused inventions and patents in corporation files. They work in much the same way as the Navan Div. of North American Aviation, Inc., which hunts markets for ideas that emerge as byproducts of the company's efforts in aircraft, mis-

MOLDED FITMENTS: Diaphragm and insert tube of ALATHON work by squeeze pressure and capillary attraction to make striped toothpaste; are unaffected by contents. (By Gibson Associates, Cranford, N.J., for Lever Brothers Co., N.Y.)

TOYS: Light, durable projectiles of ALATHON polyethylene resin retain their shape, will not hurt children or harm household articles. (Projectiles by Detroit Plastic Molding Co., for Ack-Ack, Inc., both of East Detroit, Michigan.)

CONTAINERS: Salt storage container of ALATHON for automatic water softener resists salt and water, is lighter and less expensive than metal units. (Mfd. by Federal Tool Corp., Chicago, for Culligan, Inc., Northbrook, Ill.)

GUTTER GUARD: Tube of ALATHON arches above gutter, forming tunnel that prevents clogging by litter. Water enters gutter through scalloped edges. (Jessall Plastics, Kensington, Conn., for JO-LI-ET Gutter Gard Corp., Glenbrook, Conn.)

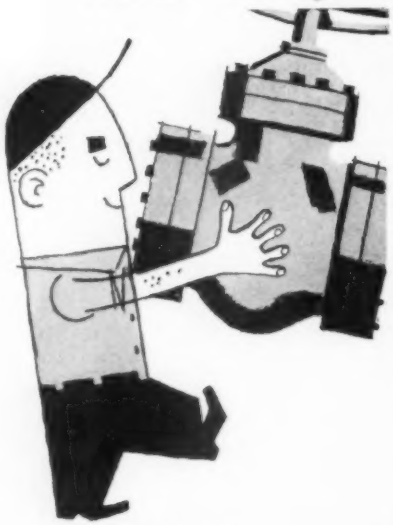
ALATHON® makes new products possible . . . and profitable

HERE'S HOW: The versatility and unusual properties of Du Pont ALATHON polyethylene resins are perfect for creating many new products with new sales appeal—at low cost. Unique dispenser for striping toothpaste, harmless toy projectiles, corrosion-proof storage containers and lightweight guards that prevent gutter clogging are just four examples. Many manufacturers have used ALATHON to produce new products and new profits. Perhaps ALATHON can help *you*. Find out how by writing E. I. du Pont de Nemours & Co. (Inc.), Department D-926, Room 2507A, Nemours Building, Wilmington 98, Delaware.

ALATHON®
POLYETHYLENE RESINS
POLYCHEMICALS DEPARTMENT

DU PONT
REG. U.S. PAT. OFF.
Better Things for Better Living
. . . through Chemistry

Does material just "walk away"?



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siles, and electronics (BW—Mar.14'56, p184).

The National Patent Development Corp. of New York will track down unused patents for a client interested in a particular product. It will also try to sell or license patents that have been lying dormant. Wirth Management Co., consultants in Wilton, Conn., will perform similar services. It also offers a Business Incubation Laboratory to nurse a new product through development, market testing and planning, and sales management—particularly valuable if a company is venturing into an unfamiliar field. After the product has proved profitable, Wirth turns it back to the client.

Maver Associates, Inc., a two-month-old Philadelphia outfit, also includes hunts for usable patents in its repertoire of services, but it specializes in finding new products in electronics and other highly technical fields.

• **Federal Help**—The seeker of a new product can turn for help to the Small Business Administration's product assistance program. SBA illustrates and briefly describes about 100 patents a month in its Product List Circular, mailed free to 15,000 small businessmen. SBA will furnish the inventor's name on request, but it makes no attempt to evaluate ideas, beyond selecting the most promising patents of the month. It hopes to win permission to publish details of dormant patents held by corporations.

The monthly list stimulates 1,500 to 2,000 inquiries, but only about 2% result in inventor meeting manufacturer.

Another source of new products is the gadget show and new product fair. A Los Angeles Chamber of Commerce new products show last year drew more than 1,000 manufacturers to inspect 327 items—of which at least 37 were placed.

In the flurry of new products activity, there's an occasional complaint of shady practice. In Milwaukee, for instance, two development consultants reportedly took $200 from an inventor to pay for development work and a search for investors, but results were invisible. "Unfortunately, there is no way of saying that such outfits are unethical, or bringing pressure upon them," says one reputable concern in the field. The only safeguard is to make sure the organization has won a name for integrity.

Budget-Priced Closed-Circuit TV

This simplified low-cost closed-circuit TV camera was designed and priced primarily to fit the needs of the average school. Believing that high prices of present equipment have kept schools from using closed-circuit TV, Argus Cameras Div. of Sylvania Electric Products Corp. developed a camera that costs only $595 and a monitor set priced at $180. Competitive systems cost upwards of $1,200 for the camera and $350 for the monitor.

• **Easy to Use**—In addition, the Argus TV system can be set up and operated by a person who has no specialized training in electronics. A direct wire-coaxial cable with screwdriver connections links camera and monitor, and no intermediate amplifier is needed for distances under 1,000 ft. The TV camera will give a sharp image with ordinary lighting. The camera comes with one lens in a four-position turret mount. Accessory wide-angle and telephoto lenses are available, and the fourth position allows extreme close-ups to be shot with any of the three lenses.

Standard TV sets can be used for viewing the picture on channels 2 through 6. Argus is making 17-in. and 23-in. monitors that have five channels. Both camera and monitor have printed circuits and use conventional, widely available tubes. That means neighborhood television repairmen can service the equipment. END

ALLOYS BRING THE FUTURE CLOSER

THIS "HARD-TOP CONVERTIBLE" WILL SCORE WITH FANS! No matter what the weather outside, football and other events can be enjoyed here under ideal conditions of temperature, humidity and lighting, day or night. This giant coliseum will also house theatres, shops, exhibition and other entertainment areas, restaurants, parking areas . . . even a nursery.

At least one mammoth center like this is already being built and, with America's increasing leisure time, others may soon follow. When they do, stainless and alloy steels will play the key role in their construction. For these beautiful, extra-strong yet lightweight, weather-resistant steels make ideas like this possible!

Vanadium Corporation of America is a leading producer of the ferro alloys which give steels their strength and endurance. Not only do these steels have great significance in America's *future* material progress . . . they're used, right now, in profusion . . . in buildings, bridges, autos and almost everywhere you look! Vanadium Corporation of America, 420 Lexington Avenue, New York 17, New York.

VANCORAM

VANADIUM CORPORATION OF AMERICA

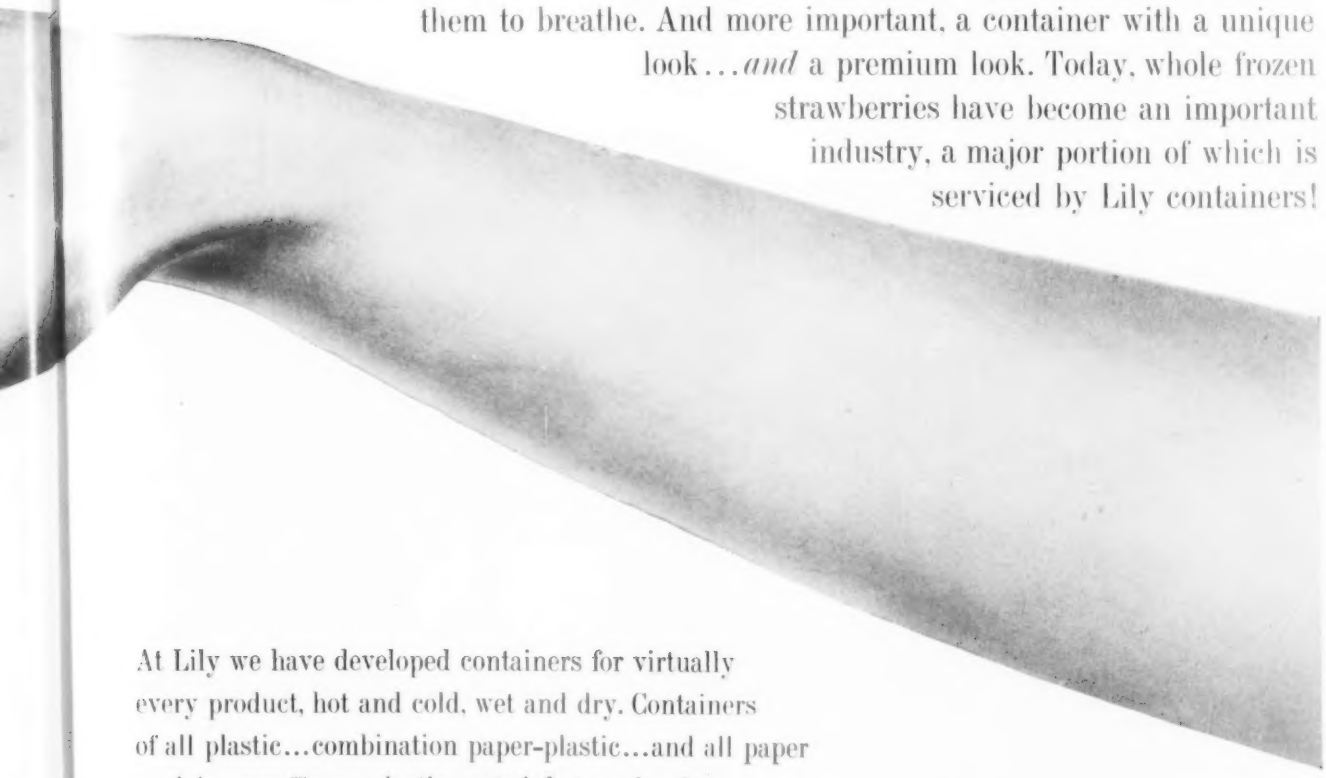
THE PLUS*THAT

*STANDOUT-ISM

TURNS THE SALE FOR YOU

Adding *one* ingredient can make the difference that turns the sale. That ingredient is "Standout-ism"—a look that stops your consumers and *sells* them! A look that's built into every Lily Container.

Here's what "Standout-ism" did for Fairmont strawberries: In 1952, Lily's packaging division developed a special container for *whole* frozen strawberries. A round container that didn't bruise the berries, and allowed them to breathe. And more important, a container with a unique look . . . *and* a premium look. Today, whole frozen strawberries have become an important industry, a major portion of which is serviced by Lily containers!



At Lily we have developed containers for virtually every product, hot and cold, wet and dry. Containers of all plastic...combination paper-plastic...and all paper —plain, paraffin or plastic-coated. Let us develop a container with "Standout-ism" that's best for your product. Call us, or mail the coupon.

LILY-TULIP

©Lily-Tulip Cup Corp., 1959

Lily-Tulip Cup Corporation, Dept. BW 99
122 East 42nd Street, New York 17, N.Y.

I would like to hear more about Lily® containers with "Standout-ism."

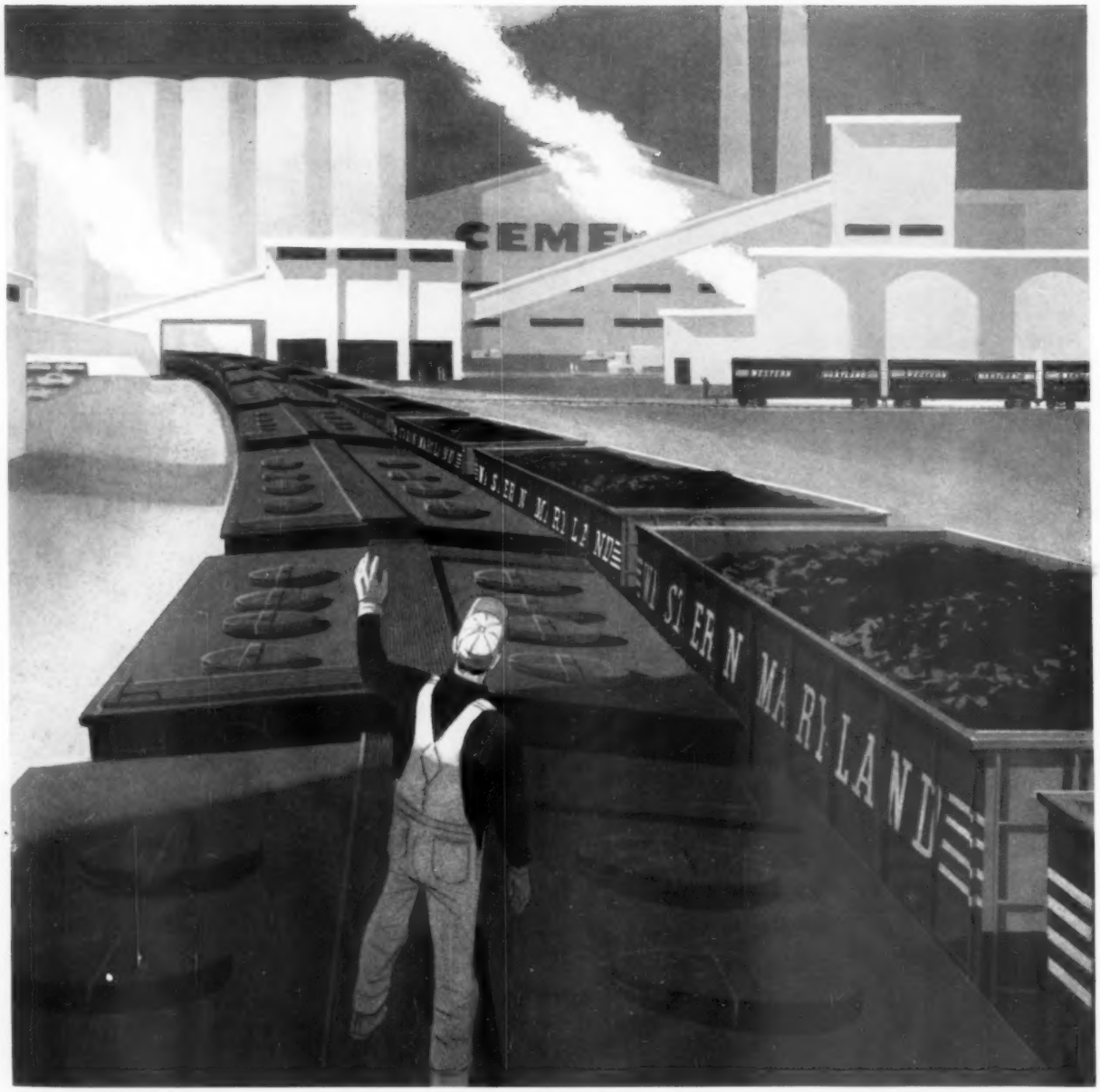
NAME_____

COMPANY_____

STREET_____

CITY_____ ZONE____ STATE_____

the Lily-look with buy appeal



A concrete example of how the Western Maryland serves an essential industry

In Western Maryland Railway's country you see heavy seams of limestone and of coal. Also huge deposits of clay and related products needed for top quality cement.

The Western Maryland feeds them fast into the giant cement plants of the area . . . then hauls cement to where it's used.

Just as portland cement is the backbone of heavy building construction, so railroads are the backbone of economically sound freight movement.

Whatever you ship—in bulk or by units—you'll find Western Maryland has the latest car designs and handling methods to give you fast and efficient service. Friendly, too. Just call on us and see.

300 St. Paul Place, Baltimore 2, Md.—Short Cut for Fast Freight

In Marketing

• • •

Yule Gift Certificates for Steaks Urged on Business in California

A plan that helps put the food store into the corporate Christmas gift business is the brainchild of the California Beef Council. This is a voluntary organization supported by California ranchers, feeders, and dairymen. Its object, naturally: to promote consumption of beef.

The council's newest effort centers around the Steak Certificate. The organization is sending out a mailing to business concerns, mainly in California, but it will hit the national companies that buy for corporate giving, too. **Companies that want to use the certificates buy them at $2.50 each—from the council in San Francisco.**

The buyer distributes the certificates in any amount he wants. The recipient treats them as he would treat any other coupon. He takes it to his food store, pays for the steak or roast up to the face value of the certificates he holds. The store operator is reimbursed by the council, and also gets a handling charge.

• • •

Manhattan's Yellow Pages to List American Express Credit Card Outlets

Something new will show in the Yellow Pages of the New York Telephone Co.'s Manhattan classified directory for 1960; American Express Co. service outlets—some 800 companies participating in its credit card service—will appear under the heading Credit & Charge Plans. The entry will require about three pages.

In addition, each of the outlets honoring the company's credit cards will have an identifying line beneath the present entry within its own section that tells the readers so. American Express Co. is picking up the tab for the identifying line.

According to Reuben H. Donnelley Corp., which made the arrangements, the 1960 directory will come out in November.

If the plan works, American Express may publish similar listings in the Yellow Pages of other major cities.

• • •

Outsize Shopping Center in Plattsburgh Sets Its Cap for Canadian Visitors

U.S. retailers close to Canada are out to woo business from across the border.

Plattsburgh, N. Y., 20 miles from the boundary, is a good case in point. The North Country Shopping Center now going up there has more than one eye on its Canadian neighbors. Though Plattsburgh has a population of only 28,000, it reaches a U.S. market of some 165,000 in the Champlain Basin.

MORE NEWS ABOUT MARKETING ON:

- P. 109—Gigantic Dealer Junkets Prove Potent Sales Tool.
- P. 114—Rebirth of the Salesman.

Plattsburgh figures that up to 150,000 visitors come from the Dominion each week during the resort season. **Last year, it's estimated, they spent some $30-million at the city's retail outlets.**

The $3.5-million project will have 40 stores, making it the biggest concentration of stores between Montreal and Albany, developer Jerome Lieberthal of New York believes.

A special bid for Canadian customers is the presence in the center of a branch of Manufacturers National Bank of Troy. It expects a sizable business with Canadian shoppers who hope to benefit from the rate of exchange with $1 Canadian worth $1.05 U.S.

Other tenants in the center include: H. L. Green, W. T. Grant, A&P, Shoe Corp. of America, and a Canadian chain, Champlain Drug Stores.

• • •

Canadian Oil, Gas Companies Offer Second Mortgages to Get Home Heating

Canadian oil and natural gas companies have seized on an unusual sales tool in their fight for the heating fuel market in new homes. **Both are offering second mortgages of up to $1,200 to new homeowners who will use their types of fuel in new home plans.**

Imperial Oil of Canada (Jersey Standard's Canadian affiliate) will extend the second mortgage at the same rate as the applicant's first mortgage provided the rate isn't less than 6%. It will test the program first in British Columbia and Quebec, the areas where heating oil is most competitive in price with natural gas. Shell Oil Co. of Canada and Canadian Oil Cos. Ltd. reportedly are considering similar plans. Quebec Natural Gas reportedly has retaliated by offering $1,200 second mortgages at a flat 6% for seven year periods.

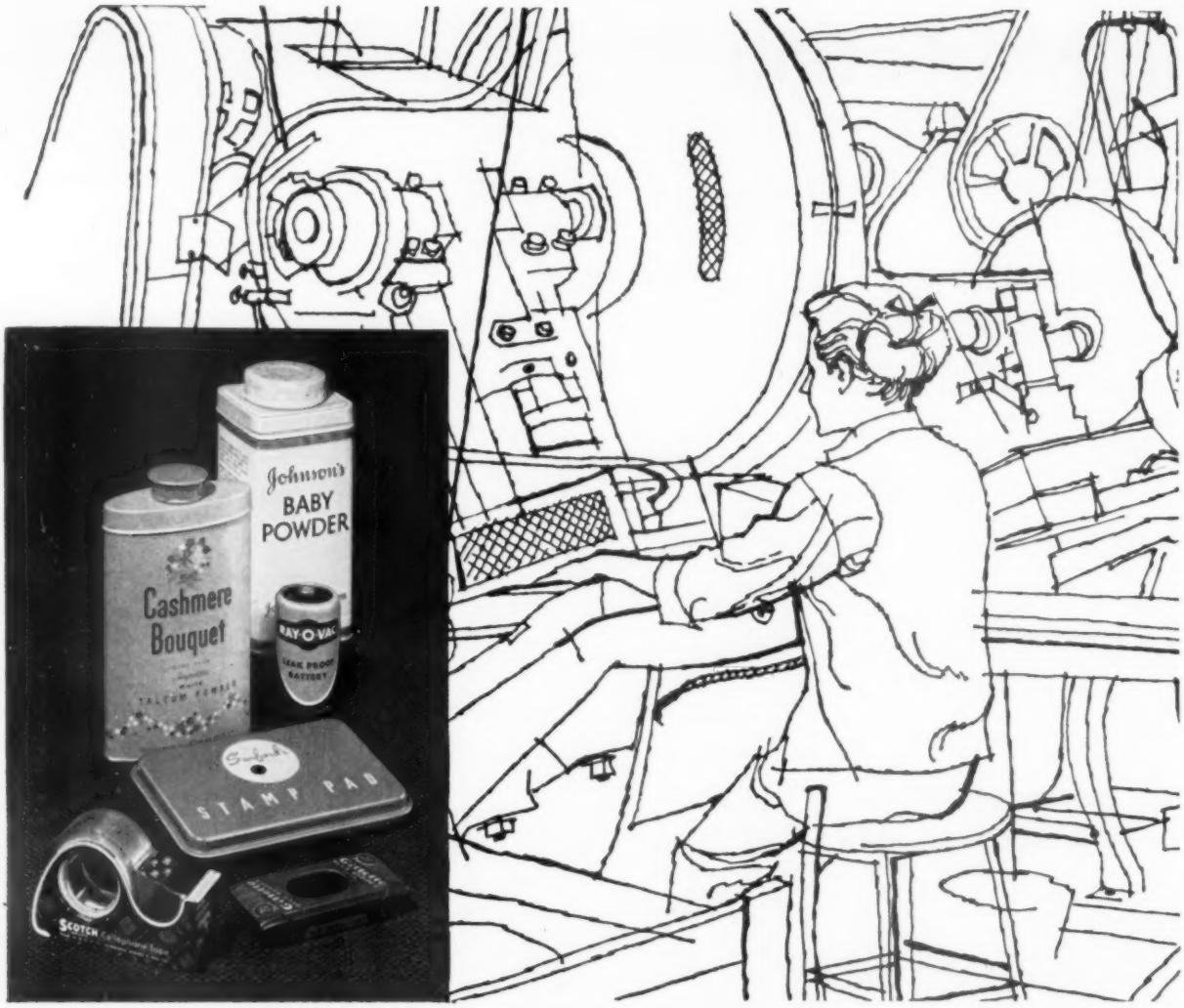
A look at the drumtight condition of the Canadian money market underlines the importance of these competitive gambits. **Second mortgages—when obtainable—are quoted at around 7%.** But the successful applicant has been paying as much as an 18%-20% bonus for his second mortgage in some areas.

• • •

Toledo's Mall Meets With Favor

Toledo will extend its downtown mall experiment (BW—Aug.15'59,p56) and may make it permanent. The City Council has voted unanimously to maintain the mall for at least another two months beyond the original 45-day trial period.

Merchants on the mall polled 80% in favor of the extension. And off-mall merchants favored the extension by more than 3 to 1.



CLARK CONTAINERS SELL ON SIGHT. Rigid precision in fabrication is the extra "plus factor" that makes each Clark lithographed metal container a *natural-born salesman.* Hairline register, exact color reproduction, precise tolerances... all play their vital parts. Clark containers can be manufactured economically in large or moderate lots, of metal or combinations of metal and plastic, and with unique structures. Yet, the result is always the same: they sell on sight.

TRAVELING THROUGH CLARK, a new graphically illustrated brochure takes you behind the scenes at Clark's—shows you the broad design and manufacturing facilities which enable Clark to produce successful containers for many nationally famous brands. Write for your free copy today.

lithographed metal containers

J. L. CLARK

J. L. Clark Manufacturing Co., Rockford, Ill.;
Liberty Division Plant and Sales, Lancaster Pa.;
New York Sales Office, Chrysler Bldg., New York 17

Sell Appliances, See the World

Trips to exotic places reward dealers for pushing sales of brands that get scanty consumer advertising.

September normally spells seasonal slump in the appliance business. But for dealers of two aggressive independent appliance companies, it's the time when successful sales efforts bring rich rewards in the form of airline tickets to romantic places—and good times when they get there. This month, in civilian airlifts of record size:

• Gibson Refrigerator Co., a division of Hupp Corp., is whisking 3,000 dealers and dealer guests to San Juan, Puerto Rico, for five days of fun.

• Fedders Corp., makers of air conditioners, is shipping 3,800 dealers and guests to Acapulco, Mexico, for an eight-day spree. In addition, Fedders will send about 1,000 of its very top sales producers on a nine-day tour of Rome and the Isle of Capri.

The dealer trip promotion is catching hold in another field. Fast-growing J. L. Case Co. (BW—Dec.14'57,p101) plans to fly more than 7,000 of its farm machinery and construction equipment dealers to Bal Harbour, Fla., later this year for a gala five-day premiere of its new models.

• **Way to Compete**—Basically, these appliance companies have in common a David-like size in a Goliath industry. Fedders, for instance, is very big in room air conditions, but it doesn't make a full appliance line like its giant rivals. Unable to match their bigger competitors in advertising outlays, instead they cement dealer relationships. The trips give the dealers good reason to push the sponsor's lines.

Case faced a slightly different problem. When a new management took over several years ago, it needed to revive lagging sales and it hit on trips as the best means to enliven "a pretty discouraged dealer organization."

With dealer push rather than consumer pull the cornerstone of marketing strategy in these companies, they entertain more than just a few standout salesmen. Gibson is taking along 3,000 persons from its 7,500 dealerships, Fedders 4,800 from 10,000 to 12,000 dealer organizations, Case almost two-thirds of its active dealers. Typically, a dealer earns credits toward a trip with each sale of the company's products.

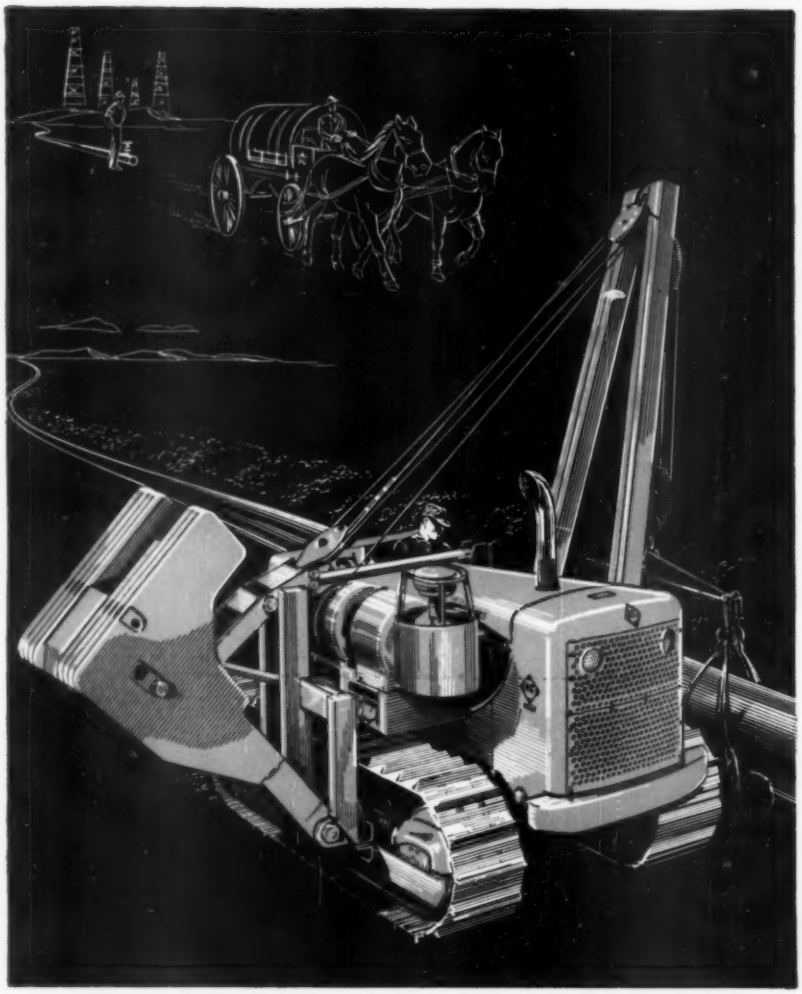
The trip must be genuinely glamorous, though, if the dealer is to work toward it instead of for the cash or merchandise bonuses offered by many

FOR THREE DAYS, Gibson refrigerator dealers whoop it up in luxurious surroundings such as Caribe Hilton Hotel in San Juan. There's scarcely a mention of work until . . .

FOURTH DAY. Then company gives a hard sell to its 1960 models, urges dealers to sign up for enough orders to qualify for next year's junket to Hawaii.

We Salute Oil's First Hundred Years...

Allis-Chalmers power speeds pipeline progress



Petroleum transport has come a long way since the days of horse-drawn oil wagons . . . and the first (2-inch) pipeline, completed in 1865. Today big Allis-Chalmers crawler tractors with side booms lay strings of pipe up to 40 inches in diameter over mountains, across rivers, through meadows and swamps . . . helping to bring petroleum products to the homes and industries of the nation.

FREE — *Interesting new full-color booklet about our company. Write Allis-Chalmers, Dept. B, Milwaukee 1, Wisconsin.*

ALLIS-CHALMERS

***POWER* FOR A GROWING WORLD**

competing manufacturers. It has to be a dessert with all the trimmings.

• **San Juan, Ahoy!**—Gibson's Puerto Rican jaunt is a good example of how well the trips measure up to these high expectations. It is properly lavish throughout—from the bon voyage parties that precede boarding chartered airliners to the farewell gathering for cocktails. After a frozen daiquri at the San Juan airport, Gibson's guests are sped to Puerto Rico's two newest, poshest hotels, La Concha and the Caribe Hilton, and treated to a day and a half of fine food, floor shows, and exotic libations. Then comes a day in the Virgin Islands for free port shopping, surf bathing, and a beach party.

After three days of this soft life and the soft, soft sell, on the fourth day Gibson officials swing into the hard sell. All dealers are escorted to a three-hour show billed as the Festival of Stars. Although the show is staged by Music Corp. of America, the stars are definitely Gibson's 1960 models; there's just enough song and dance to provide relief from inspirational lectures on "Breaking the Frost Barrier" and "Getting the Freezer Fever."

• **Hawaii Ho**—Just as the audience nears saturation point, Gibson unveils its trip plans for 1960—a junket by jet to Hawaii. A film shows Gibson officials living the good life on Oahu, and a group of hula dancers troops on stage.

At the peak of the hoopla, a Gibson executive breathlessly announces that, on that day only, dealers can earn credits for the trip at half the regular rate. An undulating Tahitian dancer leads them to a Little Grass Shack to fill out orders—and win a kiss with each batch of units sufficient for the trip, plus a red Hawaiian shirt and a bell-ringing in their honor.

William Conley, Gibson's vice-president for sales, predicts it will write fully 60% of its year's orders during the series of dealer trips. "I'd go into debt to get to Hawaii," says one dealer. Another commented: "I'm a furniture dealer. Gibson is the only line I handle, and I wouldn't handle their stuff if it weren't for the trip. There just isn't enough margin in appliances today."

• **Wider Margins**—Conley says the cost of the Puerto Rico trip comes to about 80% of Gibson's total ad spending for the year. "Even so," he says, "the amount we spend on advertising is very low in proportion to what the big appliance makers spend. We can pass that difference along to our dealers in the form of better margins to compensate them for selling an unadvertised brand."

Conley gives the trips much of the credit for enlarging Gibson's dealer roster from a low of 1,000 in 1956 to its present strength of 7,500. The company would like to expand to about

SALES VICE-PRESIDENT for Gibson, William Conley, wears Hawaiian shirt awarded to dealers who earn 1960 trip.

10,000, particularly adding dealers in New England and the urban East—"our toughest area because brand consciousness runs strongest there," according to Conley. That's one reason for the selection of Hawaii for next year's destination, he adds, "going there by jet should offer a real excursion for Eastern dealers."

• **Nothing but Fun**—Fedders has used the dealer trip as a spectacular sales stimulant for eight years, but, unlike Gibson, it makes its trips strictly fun. "When you talk business on the trip, you reduce the incentive," says Edward Becker, Fedders' sales manager. Fedders won't allow any order taking during the trip, though it follows up with meetings introducing new lines. It also gives distributors great freedom to use trip credits as merchandising tools—for example, by offering three-for-one credit promotions to move a slow item or pep up sales in a dull period.

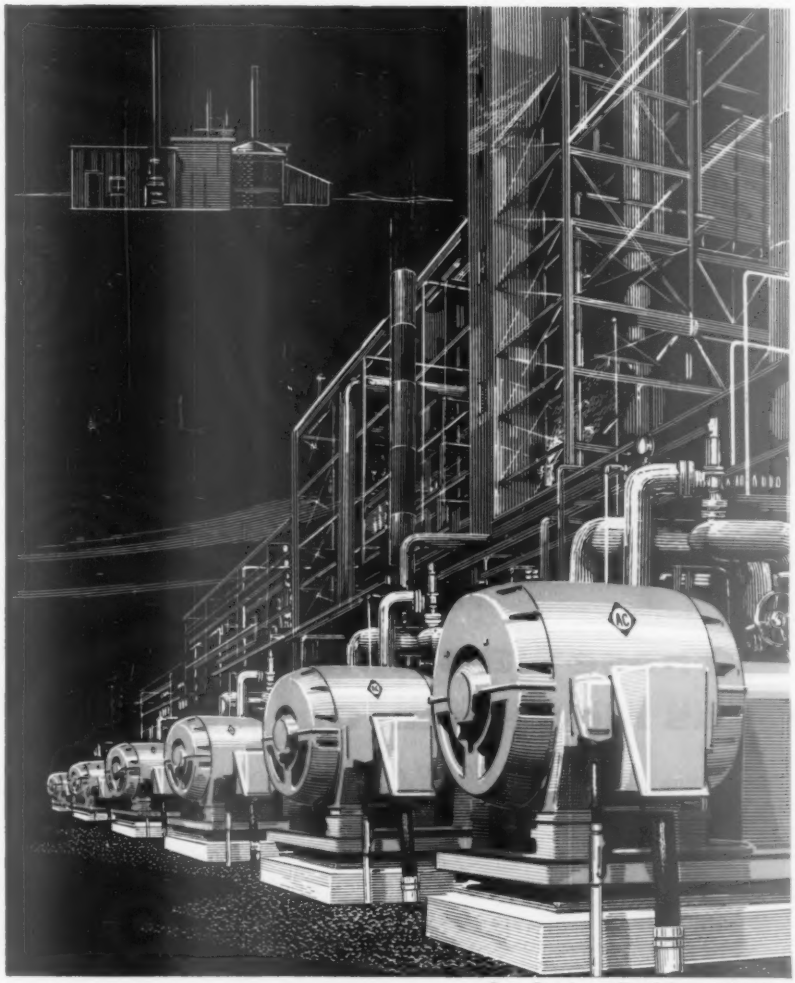
J. I. Case goes to the other extreme, stresses the working meeting, with at least three hard-sell sessions in a five-day schedule. Between times, though, there are enough fishing trips, floor shows, and sightseeing to lure the dealers. Case gets 80% of its annual orders at the meeting—enough, it figures, to make up the cost of the trip through being able to tailor production to known sales requirements.

For Case, the trip supplants a series of regional meetings that proved unsatisfactory from several standpoints. It was expensive to cart new equipment from meeting to meeting, the regionals lacked the glamor of a gala trip, and Case executives couldn't attend each one. Now Pres. Marc B. Rojtman personally meets every dealer.

• **Handshaking**—Fedders and Gibson agree that personal contact with execu-

1859-1959 . . . A Century of Achievement

Allis-Chalmers power aids refinery modernization



SUPER-SEAL is an Allis-Chalmers trademark.

From lamp oil to flight fuels in a single century, that's the story of refining. Now it's in a dramatic new era — with modernization, dependability and low unit costs growing in importance. Allis-Chalmers products like Super-Seal electric motors help meet these challenges . . . with insulation so effective nothing can hurt it, not even acid . . . yet offering refiners cost savings of up to 60 percent.

FREE *—The Inside Story of amazing, Super-Seal electric motors. Write Allis-Chalmers, Dept. B, Milwaukee 1, Wisconsin.*

ALLIS-CHALMERS

POWER FOR A GROWING WORLD

"These NBB Binders Look as Modern as Our DC-8's,"

says United Air Lines Pilot

When United Air Lines wanted a smart looking, custom-made binder for their Pilots Flight Manual they had it designed and manufactured by NBB. For your own requirement we will help you choose from a wide range of colorful virgin plastic cover material — or all the conventional ones. We are skilled in decorative techniques: 3-dimensional applique, silk screening, embossing. We will submit cover designs for your approval. You will find our representative a helpful expert in planning loose-leaf binders for catalogs, sales manuals, price list, etc. Send coupon.

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COMPANY .....

STREET .....

CITY ..... ZONE ..... STATE .....

FUN FOR DEALERS in Puerto Rico cost Gibson close to $1-million. Company officials check bills with hotel.

tives is a vital part of trip promotions. Fedders Pres. Salvatore Giordano will fly to Acapulco every weekend for 10 weeks to socialize with his dealers. As for Gibson's Pres. C. J. Gibson, Jr., Vice-Pres. Conley says: "We use our Mr. Gibson to great advantage. After all, dealers can't meet a Mr. GE or a Mr. Westinghouse."

The three companies also agree that one of the most difficult problems is to sustain excitement over the annual trip. They make heavy use of direct mail reminders, many of them aimed at wives —who can attend if the husband racks up enough sales to qualify for two trips. Fedders and Gibson distributors throw parties to show films of the upcoming tour spot.

• **Setting It Up**—Another headache is to keep unit costs of the junkets low. The solution starts with proper timing. Fedders and Gibson enjoy a natural advantage in this respect, since the season of low demand for their appliances coincides with tourist lulls—when resorts and airlines quote bargain rates.

On occasion, Fedders has deliberately selected an offbeat destination for trips and persuaded the natives that the company will put it on the map. Visions of floods of publicity and dollars already have eight different countries clamoring for Fedders' trade next year. Puerto Rico was particularly interested in Gibson's trip, because the dealers come from all over the country instead of just from the Eastern cities that provide most of its tourist trade now. Gibson figures this year's trip will infuse $3.2-million into the Puerto Rican economy.

All in all, the cost of such a trip to a company runs around a million dollars. Gibson estimates that the Puerto Rico jaunt will cost it close to $1-million; Case will spend about $1.4-million on the Florida expedition. **END**

...made possible by advanced heat processing equipment

from **HEVI-DUTY** A DIVISION OF **BASIC PRODUCTS CORPORATION**

Billets of pure beryllium are produced in these Hevi-Duty furnaces at The Brush Beryllium Company, Elmore, Ohio. One such billet, the largest ever produced, is being readied for the first manned space capsule.

In the fabulous new field of corrosion resistant, lightweight metals—including such exotic metals as titanium, zirconium and beryllium—nuclear reactor and missile development have generated new production techniques, created new uses, and increased production.

Hevi-Duty heat-treating and melting furnaces have been important in the current expansion in these space-age wonder metals. In vacuum processing, which "purifies" the metal to an almost unbelievable degree, Hevi-Duty furnaces helped pioneer the process and are now widely used by commercial producers of the "pure" metals.

New commercial uses of aluminum promise tremendous growth for this light, versatile metal. Hevi-Duty furnaces and ovens are an integral part of the equipment used for melting and processing.

Hevi-Duty Electric Company is one of the growing family of industries that forms BASIC PRODUCTS CORPORATION. There are many things that characterize our Company. Most important to you—*our products are basic*, reaching the lives of millions of Americans in their homes and in their industries.

And—*QUALITY* is BASIC in our PRODUCTS.

HEVI-DUTY ELECTRIC COMPANY, Milwaukee, Wis.

OTHER DIVISIONS OF BASIC PRODUCTS CORPORATION:
Sola Electric Co., Chicago, Illinois; Froedtert Malt Corporation, and Como-Cast Corporation, Milwaukee, Wisconsin; Anchor Manufacturing Co., Manchester, New Hampshire; Bauer-Schweitzer Malting Co., Inc., San Francisco, California.

BASIC PRODUCTS CORPORATION B P C

MILWAUKEE, WISCONSIN

QUALITY is BASIC in our PRODUCTS

for Super-Fine Cutting
of Hard, Brittle Materials

the S. S. White
Industrial Airbrasive® Unit

Not that we advise doing this to your fine crystal glassware, but it seemed to us a dramatic way to show you the versatility and the cool, shockless cutting and frosting action of our Industrial Airbrasive Unit.

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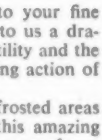

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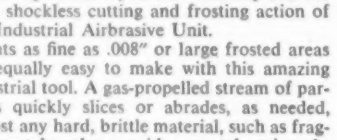

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The Marketing Pattern

Rebirth of the Salesman

THERE was a healthy ring to the thousands of words spoken at last week's marketing conference sponsored by the National Industrial Conference Board in New York. Interest was unusually high, too—probably more than 2,000 people attended the three-day meeting. The economic climate may have had something to do with that. Forecasters of next year's prospects for various industries were universally optimistic. A big year of selling surely lies ahead.

But more important, perhaps, were two other aspects of the conference. All the panelists were marketing specialists of one kind or another and hence inclined to optimism, but there was a refreshing absence of bluesky forecasting. True, the 1960s can't help but look enticing to a salesman, what with population growth, more new families, and steadily rising personal incomes. But, unlike the 1950s, the next decade apparently isn't being viewed, at this stage, as an automatic guarantee of successful business. The men at this well-attended conference obviously came, not to hear comforting words, but to learn how to sell better. Ostensibly this is the purpose of any such meeting, but it isn't always accomplished.

• Accent on Specifics—In fact, most popular of the panel discussions were those devoted to two specific areas of selling:

- How you organize, lead, compensate, and train a good sales force.
- How you select, launch, and predict the sales of new products.

Undoubtedly, interest in these two areas is a reflection of the lessons marketing people learned during the recent recession, when automatic selling went out the window and the best-laid product plans fell far short of their goals.

Of these two areas of salesmanship, the emphasis on field selling and organization is the sharpest departure from trends of the past few years. Panelists made special note of the growing importance to company management of the branch or field sales manager—out where the sales are made.

As Garlan Morse, a Sylvania vice-president, put it:

"Today's field sales manager is becoming more and more the company head in his geographical area of operation." He was seconded by Henry H. Henley, Jr., vice-president of McKesson & Robbins: "Systems, procedures, methods, good communications, long-term planning all have their place, but efficient management of branch sales offices begins with well-trained, well-motivated, and well-rewarded men."

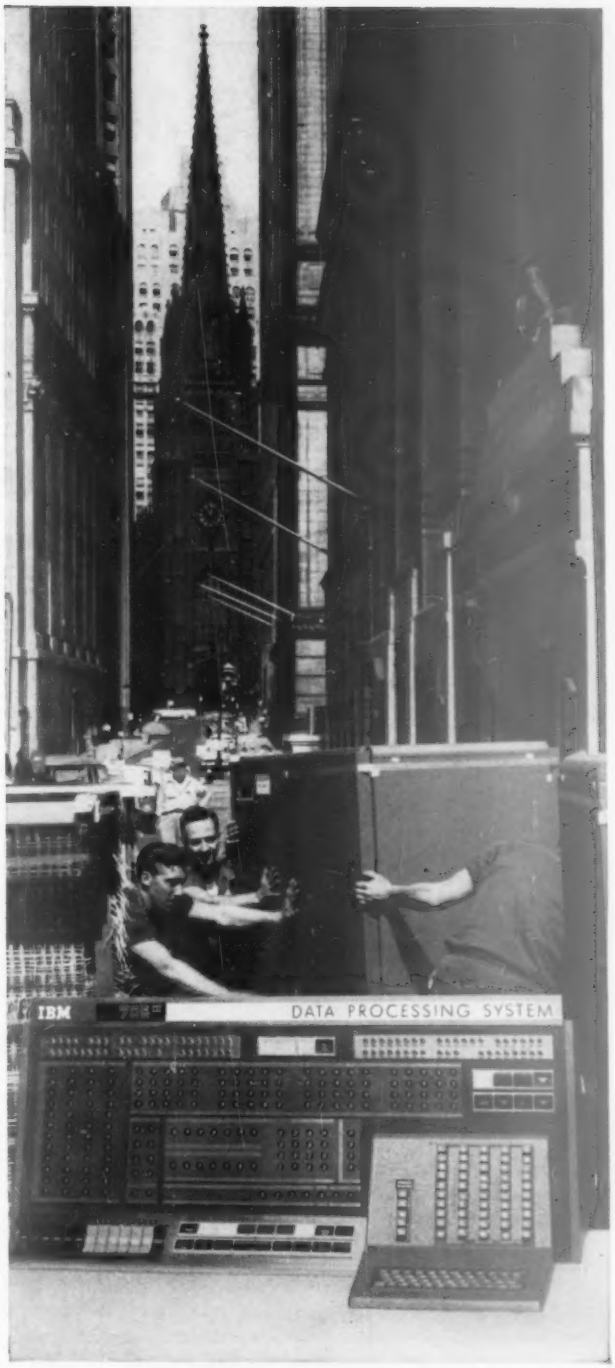
• New Notion—To a certain extent, this is a departure from the mass-marketing notion that gained wide popularity during the booming times after World War II. Goods were sold then by the product and the hefty promotion; in addition, top management felt it had the consumer well cased.

Now, apparently, the marketing focus is on salesmen and sales managers who know their particular markets, their individual customers, and their own special problems. Perhaps this will be the solution to complaints that American salesmen have forgotten how to sell. It's just possible that the reason they did forget (if they did) was the lack of top management interest in the field force. Selling came easily anyway in runaway prosperity.

It all adds up to this encouraging sign: U. S. businessmen have recognized that, whatever the markets of the 1960s bring, one important change has occurred. We are already into what might be called the age of the discriminating buyer—industrial or consumer. He has wide choices of products, services, and brands, both foreign and domestic. Only pinpoint selling, with new and better products and favorable prices, will entice him.

This isn't to say that market planning at the top level can be overlooked. In fact, every indication is that companies, which up to a couple of years ago enjoyed unprecedented demand for their products, have launched company-wide planning that places marketing in the forefront. But these coordinated plans are simply the tools for salesmen to use. They give guidelines for effective action, but that doesn't mean attention to field problems can be slighted.

another IBM computer to help Wall Street serve Main Street



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- do all bookkeeping operations
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- speed the preparation of customer portfolio analyses

But, what does this action on Wall Street mean to your business?

First, let's take a fresh look at the term "data processing"! Fast as the 705III is—let's forget the technical aspects for the moment. For you it means a faster, more accurate and less costly way of using daily business data for more profitable management decisions.

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*1950—the IBM 604 Electronic Calculator
1956—the IBM 650

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These stories illustrate how Koppers customers are using our products to cut costs, make a better product and improve efficiency. If there is an idea here that suggests a money-saving solution to you, just return the coupon and we will send you full information on the subjects you check.

Vat dyes keep colors fast in Sheraton Hotel linens

Meet B.W. Dugan, Laundry Manager of the famous 1600-room Penn-Sheraton Hotel in Pittsburgh, Pa. That tablecloth is one of a load of linens just dyed in the hotel laundry, with a Koppers "Sani-Vat" Dye Kit. Mr. Dugan swears by Koppers vat dyes because they are color fast where fastness counts. "For instance," he says, "you dye a load of table cloths and napkins all the same color. Within three months, those linens used most often will be washed maybe 70 or 80 times. Others, which have led a lazy life at the bottom of the stack, may have been used and laundered only five or six times. Yet, lay them side-by-side and you can't tell the difference." Perfect for new or faded fabrics, vat dyes' *permanent* colors remain fast after exposure to sunlight, bleach, wash after wash, dry cleaning and hot pressing. Want bright *new* life for faded uniforms, drapes, napery, or linens at low cost? Return the coupon.

Railroad panel crossing needs no repair after six years

You're looking at a prefabricated panel crossing on the Texas & Northern Railway, where it intersects with heavily traveled State Route 26—just a hoot and a holler from Lone Star, Texas . . . pardner.

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Need a rugged, prefab panel crossing around your plant or on your railroad? Check the coupon.

Durethene® film cuts silage losses

You're in Green County, Wisconsin, visiting dairy farmer Bill Pryce. Until last year, Bill had a problem. Not enough top-quality silage to feed his cows. But how do you store more silage without building a costly silo? Bill shows you. It's a 25- x 55-foot trench silo that cost him only $79.00, including digging. For protection, it's covered with DURETHENE plastic film, a product of Koppers. Result? An additional 25 tons of silage for the stock, with practically no spoilage—thanks to the DURETHENE. Bill Pryce and smart farmers like him all over the country are finding DURETHENE film a mighty handy material to have around the farm or suburban home. It is manufactured in widths up to 40 feet. Wider sheets can be formed by heat sealing. Standard rolls are 100 feet long, black or clear. Use it for mulch, ditch liner, machinery tarps, protective covers for anything out-of-doors. Use coupon for full details.

Hospital roof that heals itself

Let cracks or checks appear in the roof of the Driscoll Foundation Children's Hospital at Corpus Christi, Texas, and the roof performs a particular therapy of its own. Its "live" element—coal-tar pitch—flows together, seals the crack, and heals the scar.

Koppers Coal-Tar Pitch Built-Up Roofs consist of alternate layers of coal-tar pitch and tarred felt which form a continuous membrane over the roof surface. Completely watertight, the roof may be topped with slag or gravel (as shown). Where roof traffic is expected, however, it should be surfaced with promenade tile.

Coal-Tar Pitch Built-Up Roofs, produced by Koppers Tar Products Division, are so waterproof that they can be permanently flooded without danger of leakage. Need a foolproof roof? Check the coupon for complete information.

Koppers Piston Rings help power nuclear submarines

This is the *Nautilus*, world's first nuclear-powered submarine, cleaving through the brisk waters off Connecticut on her way to the open sea. Like her sister ships—the *Skate*, first submarine ever to surface at the North Pole, and the *Triton*, largest submarine ever built and the first to use twin-nuclear reactors—the *Nautilus* is a product of General Dynamics Corporation, Electric Boat Division. All three of these famous submarines are using piston rings and special ring assemblies manufactured by Koppers Metal Products Division.

In designing nuclear submarines, endurance and reliability are paramount. Koppers Piston Rings were chosen for heat and pressure applications in auxiliary equipment because they more than meet the critical performance and safety requirements of atomic-powered undersea craft.

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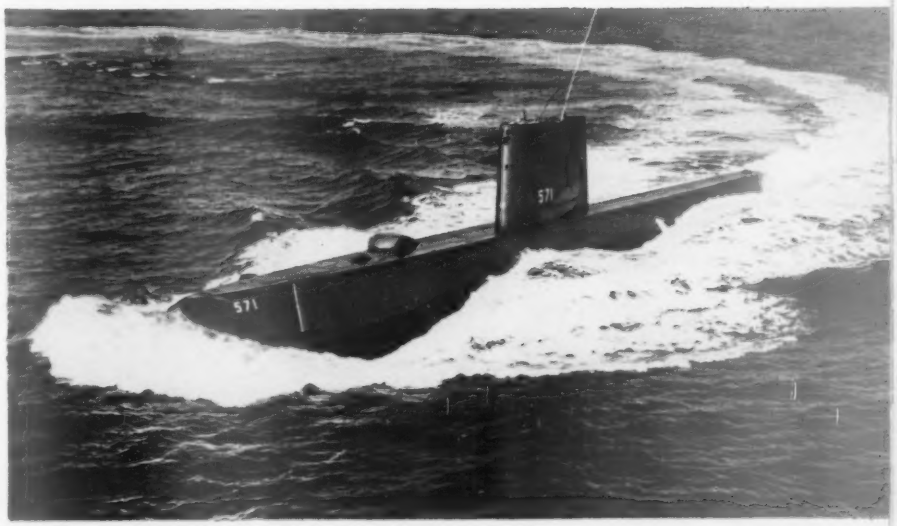

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ECONOMICS

Economists Get Storm Warning

World conference, debating inflation, is jolted by forecast that real danger is liquidity crisis and world deflation.

At the Prins Hamlet Hotel in Elsinore, Denmark—a short walk from that monument to human indecision, Kronborg Castle (picture, below), the scene of Hamlet's tragic story—economists from all parts of the world met during the first 10 days of September to brood about their common postwar problem—inflation.

But the ghost that came to haunt this conference of the International Economic Assn. was that of a different, even more ominous danger—worldwide deflation.

While the inflation debate was going round and round, day by day, over the familiar arguments, Prof. Robert Triffin of Yale University gave the contending economists a jolt by telling them, in effect, that they were belaboring a dying issue. The world, he suggested, may not have too much longer to worry about creeping inflation. Instead, he predicted real trouble in the next few years over deflation, devaluation, trade and exchange restrictions—the consequences, as he foresaw it, of a coming liquidity crisis.

Triffin had a remedy, though, for the danger he foresaw. He proposed meeting it by revamping the International Monetary Fund—making it into a true central bank for central banks, one that could expand the reserve base for the world's monetary system.

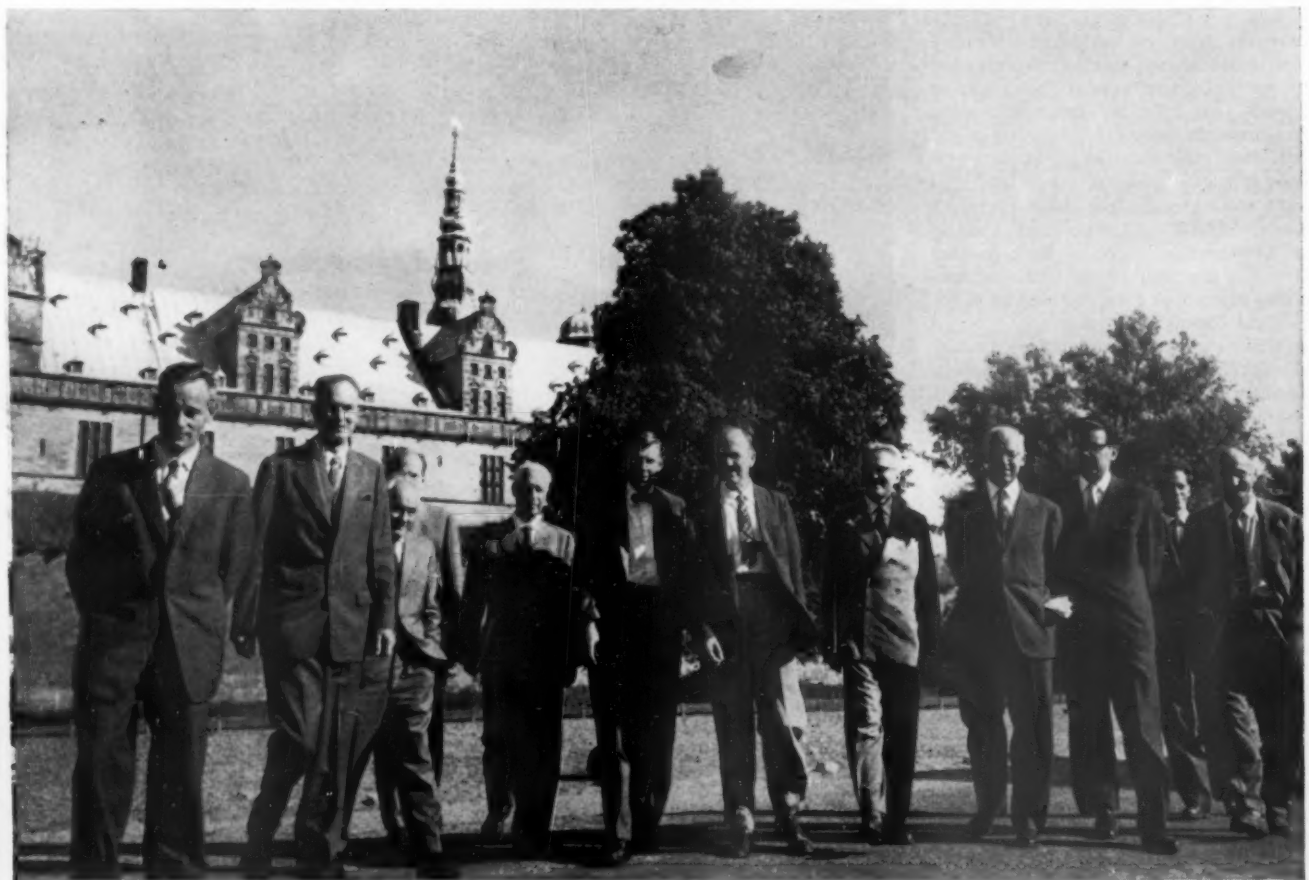
I. Inflation Tilt

The inflation debate turned into a free-for-all, with liberal economists and central bankers leading the opposing camps. The liberal economists denounced central bankers for narrow moralism and stinginess; the central bankers denounced liberal economists, and special interest groups in modern economic society, for moral laxity and profligacy.

• **Range**—Some economists contended there was no conflict between price stability and full employment; others called such conflict inevitable. Some maintained inflation was mainly due to cost-push, others to demand-pull. Others blamed both—as Sir Dennis Robertson of Cambridge University, England, put it, "The stalagmite of costs meets the stalactite of demand in an icy kiss."

Gottfried Haberler of Harvard saw the villain behind inflation in the quantity of money; Jacques Rueff of Paris in sloppy government fiscal policy; Edward Chamberlin of Harvard in labor unions; Erik Lindahl, of Uppsala, Sweden, in all of these and business monopolies as well. Lindahl, retiring president of IEA, concluded that price stability must become the paramount aim of national economic policy, particularly in the U. S., on whose dollar all other national currencies depend.

• **Frustration**—At the end, there was a sense of frustration and little accomplishment. The association's newly elected president, Prof. E. A. G. Robinson of Cambridge, England, wearily summing up, said, "The atmosphere



FROM AROUND THE WORLD, economists and central bankers gather at Elsinore, Denmark, to discuss economic issues.

IRON CURTAIN economists—Poland's B. Oyrzanowski (left) and E. Lipinski, Czechoslovakia's Jaroslav Langr—say West must grow faster.

WARNING of swing toward deflation comes from Robert Triffin of Yale (left), shown with Louis Baudin of Paris.

SLOWDOWN in growth as result of anti-inflation policies is seen by Robert Mosse of Grenoble, France (right).

TIGHT MONEY effects on employment are discussed by James S. Duesenberry, Harvard; Erik Lundberg, Sweden.

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UNITED "POP" RIVETS

BRITAIN'S E. A. G. Robinson, new president, deplores too much "condemning sin."

of these meetings has been over much that of a Calvinist convention, in which we have condemned sin and sinners."

Many governments today are anxious to do something about inflation, said Robinson, but the real question is one of weapons. "We haven't enough weapons, and those we have aren't satisfactory," he asserted. He questioned the efficacy of money measures, saying, "I find it difficult to understand how changes in the stock of money are working through to effect the appropriate changes in the flow of demand."

Robinson agreed with his Polish colleague, Prof. Edward Lipinski of Warsaw, that the world is moving from a competitive arms struggle to a struggle over competitive economic development. "Those systems will survive," said Robinson, "which best provide incomes consistently with freedom and justice. We in the West must devise ways by which our systems can show as good growth rates as others."

The big problem for managers of the world's banking system today, he added, is this: Can they, without forgetting their price-stabilization duties, also make the banking nations pace-making nations?

II. Deflation Warning

Triffin's warning that the real danger ahead is not inflation but deflation resulting from a liquidity crisis got a mixed reception. Outside the meetings, some economists voiced strong support for his views. Others—particularly the central bankers—were more cautious, saying it was impossible at this stage to pass judgment on his diagnosis or his solution. All pledged careful study of the question.

There was little inclination, at any

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"... there was little inclination to scoff at Triffin's warning . . ."

(STORY on page 118)

rate, to scoff at Triffin's warning, for his prestige as an economist and monetary expert is high. He fathered the European Payments Union and, more than any other man, negotiated it into existence.

EPU's success in restoring European trade and strengthening European currencies helped pave the way for last year's "dash to convertibility"—but this lessened the need for EPU and led to its breakup. Triffin went on from this point in his paper, entitled The Gold Shortage, the Dollar Glut, and the Future of Convertibility.

• **Double Threat**—The new experiment in convertibility, Triffin fears, faces the same two threats that wrecked a similar experiment some 30 years ago.

• The first is the difficulty of providing adequate monetary reserves in an expanding world economy. The ratio of the world's monetary gold stocks to imports has fallen from 110% just before World War II to less than 40%. New gold output and Soviet gold sales have added to monetary gold reserves at a rate of only 1½% a year—compared to an annual gain of 5% to 6% in volume of world trade and manufacturing activity. "It is evident," says Triffin, "that gold alone could not possibly feed the maintenance of adequate reserve levels in an expanding world economy."

• The second—and more immediate threat—results from the first. To palliate the increasing shortage of gold, the world has reconstructed essentially the same gold-exchange system that fell to pieces in 1931. Nations have done this by holding other nations' currencies—particularly U.S. dollars and British sterling—as international reserves to supplement monetary gold. This makes the world's monetary system extremely vulnerable.

Large-scale conversions of reserves and other liquid assets from one key currency into the other, or from both into gold, says Triffin, "may at any time topple the whole structure, as they did in the early 1930s."

• **Liquidity**—A postwar world that has, for so long, been dominated by inflation has almost forgotten what a liquidity crisis means. It's essentially the international version of, say, a company's liquidity crisis—a fear that it can't meet its obligations with cash or nearcash; a fear that the suspicious creditors will move in on it.

Basically, nations hold reserves of gold or foreign exchange for two reasons: as a means of settling short-term

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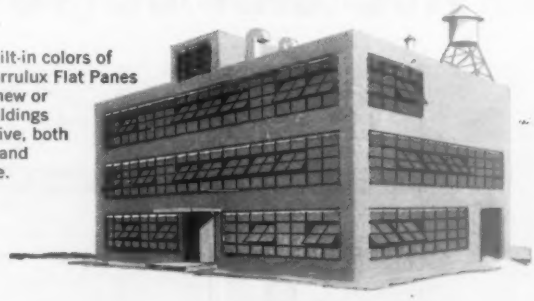

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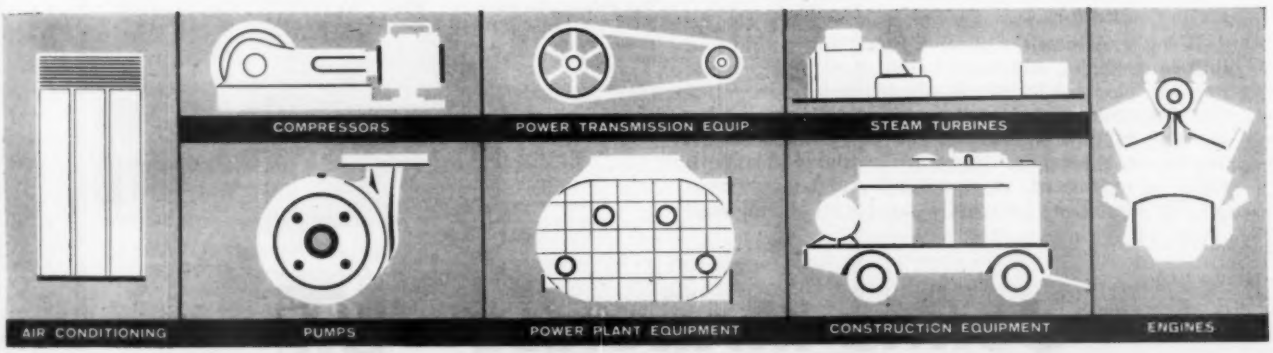
SERVICE CAN BE YOUR MOST FRUSTRATING



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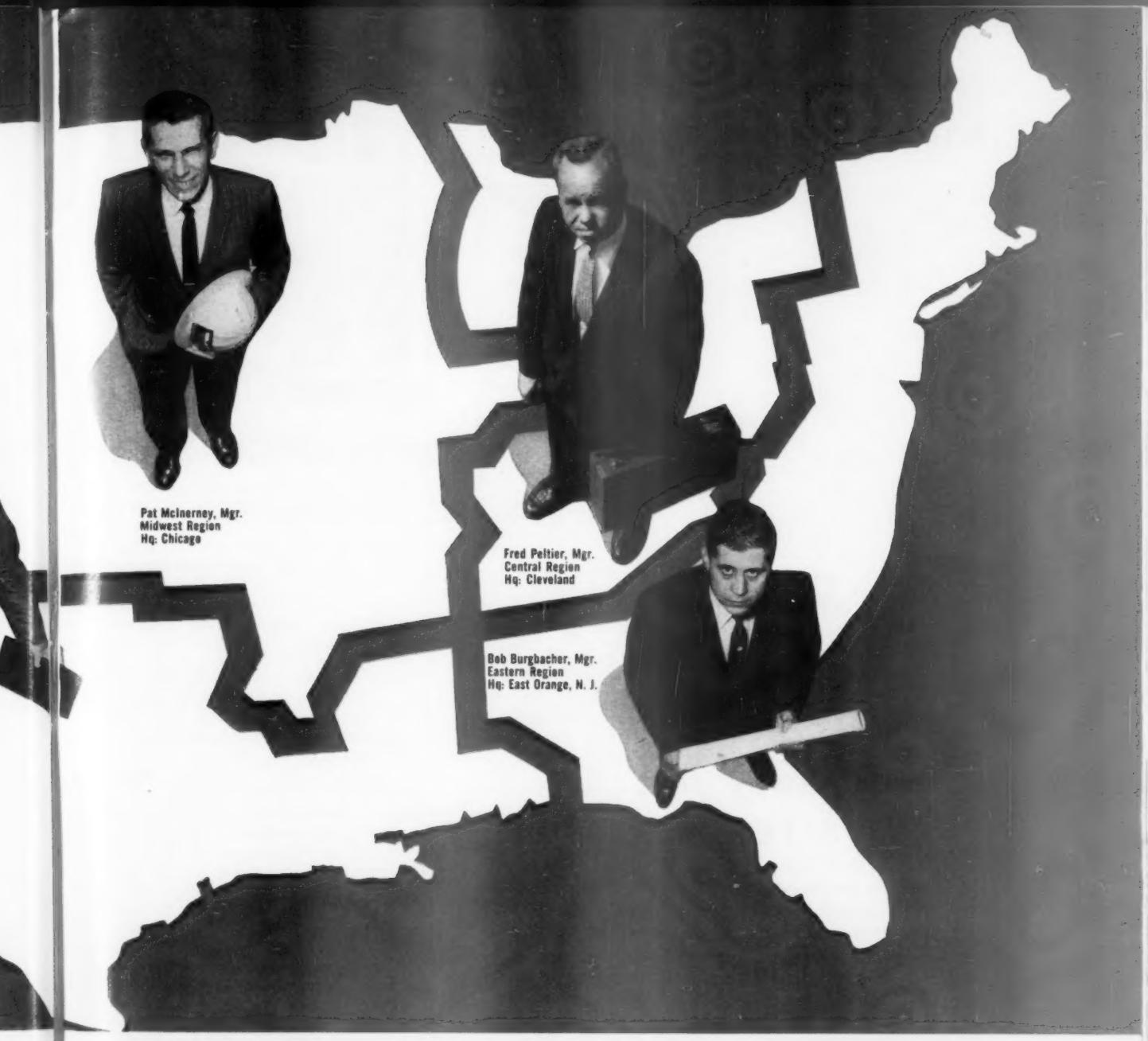

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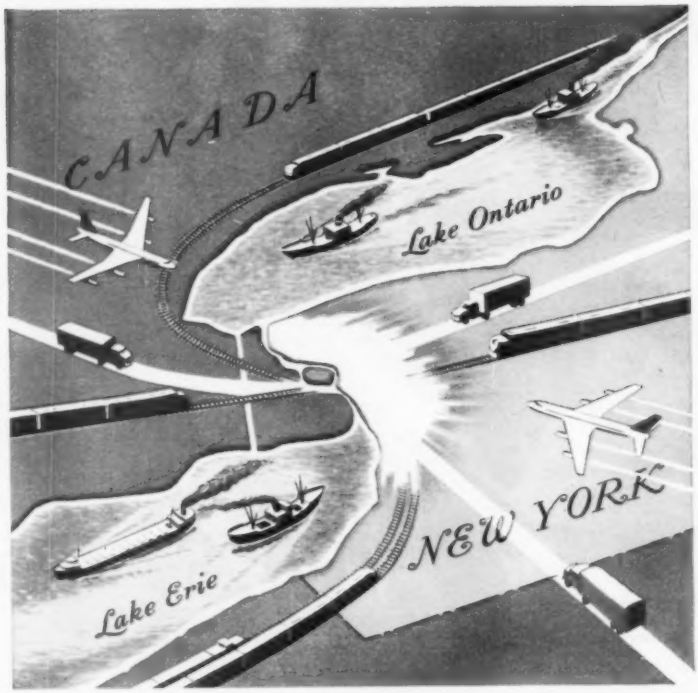

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There are good manufacturing sites available on the Frontier. Pure water is limitless; low cost power is plentiful; there's ready access to all kinds of raw materials; a solid labor force offers skill as well as brawn. For specific information on available sites for your business write, wire or phone the Director of Area Development, Niagara Mohawk Power Corp. Dept. B-9, Erie Blvd. West, Syracuse 2, N. Y.

NIAGARA MOHAWK

YALE'S Robert Triffin gets reactions to proposal for combating world deflation.

deficits in their over-all balance of payments and as a backing for their national currencies. As long as the economic weather stays fair and nations are able to keep their balance of payments reasonably under control—especially with the help of foreign aid or long-term loans or capital movements—their reserve base may shrink without causing appreciable trouble.

But if there is a severe shock to the economy of a major country, or a loss of confidence in its currency, nations that have been holding that key country's currency as reserves—as well as persons or companies holding "hot money"—may decide to get out of it. They will shift to what they think is a stronger currency, or to gold, for fear that, otherwise, they might not be able to meet their obligations or that faith in their own currency might weaken. As such fears are transmitted from nation to nation, restrictions on trade and exchange, devaluations and fears of devaluations mean a severe wrench to total economic activity—a push toward deflation—an aggravation of the forces of depression that brought on the liquidity crisis initially. Some economists believe that the collapse of the world's monetary system in 1931 was what turned a severe but essentially typical boom's-end drop into the worst, most persistent worldwide depression in economic history.

• **Dollar's Future**—The huge gold losses of the U. S. last year have given rise to "some uneasiness" about the dollar's future, Triffin observed. (Central bankers at the conference, however, proclaimed their faith in the dollar, said they were increasing their gold holdings for reasons of normal banker-like prudence.) But it was not along this line that Triffin saw the danger.

People have realized belatedly, said

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How Liberty policyholders saved $22.9 million last year on workmen's compensation insurance

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Preventing such accidents and losses is an important part of what we call protection in depth. It includes such valuable extra services as an accident research center, an occupational medicine program and two modern rehabilitation centers.

Protection in depth has helped make Liberty the nation's largest writer of compensation insurance. Last year, it also helped us return $4.8 million under retrospective rating plans and $18.1 million in dividends — $22,900,000 savings to our compensation policyholders. More than that, we helped many policyholders earn experience rating credits which will reduce their future premiums. Liberty Mutual policyholders also enjoy premium discounts allowed under rating plans in the amount of a little more than $3 million.

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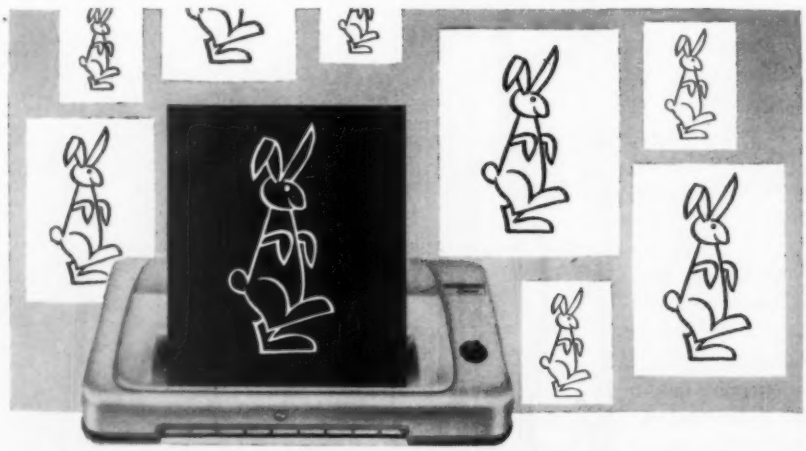

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MONETARY FUND'S Walter R. Gardner sees mark-up of gold price as no solution.

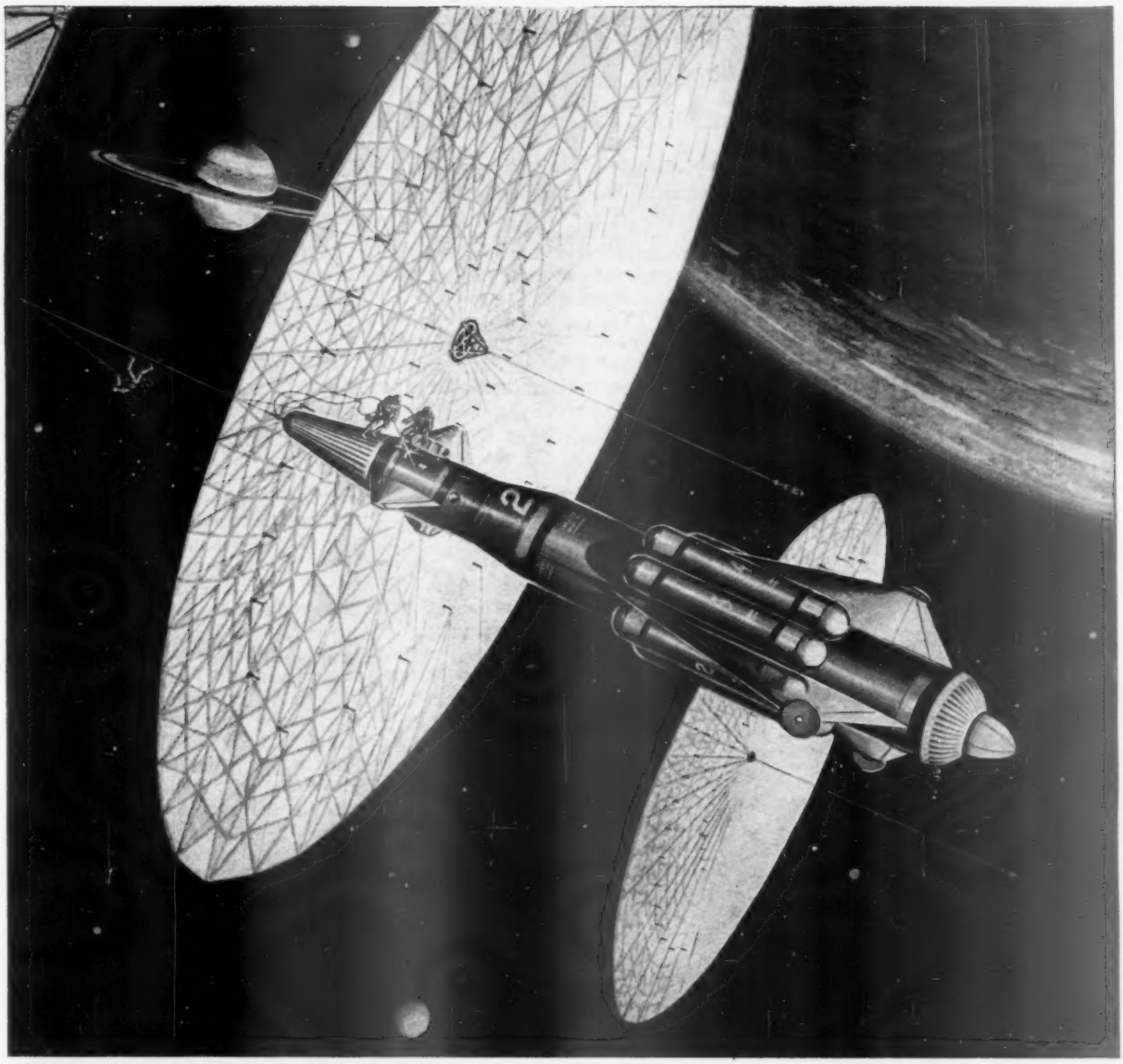
Triffin, that the excess of U.S. aid and capital exports over the U.S. dwindling current account surplus is now in its 10th year, and has been financed over the last nine years by a combination of gold losses ($4.2-billion) and increases in foreign dollar holdings ($9.4-billion). From 1950 to 1957, the U.S. deficit averaged about $1¼-billion a year; last year it jumped to $3.3-billion. This year, Federal Reserve economist Arthur Marget told the conference, the U.S. deficit will reach $4.5-billion. (But he, too, insisted the dollar was just as strong as ever.)

Triffin scotched "excessive fears" sometimes expressed abroad that the U.S. would be unable to redress the situation in time. U.S. policy is starting to shift (BW–Aug.29'59,p84)—U.S. officials are urging European nations to pick up more of the West's defense burdens, step up their own foreign aid and capital exports to underdeveloped countries, drop discriminations against dollar goods.

• **How Crisis Will Come**—All this is well and good, said Triffin, but it misses the essential point for the future: "That a successful readjustment of the U.S. over-all balance of payments is bound to bring back to the fore the latent crisis of international liquidity."

Adequate monetary reserves outside the U.S. have been maintained, Triffin calculated, only one-third by current gold production, and two-thirds by the persistent deterioration of the U.S. net reserve position. Therefore, restoring over-all balance in U.S. international transactions would deprive the world of its major source for meeting increasing reserve requirements.

And as this shift occurs, the underlying problem of world liquidity will "once more threaten to slow down or reverse the high pace of expansion



STEPS IN THE RACE TO OUTER SPACE

Solar Wind Ship

The large circular objects are Solar Wind Ships, capable of carrying astronauts on fuel-less journeys through the solar system, using the Sun's expanding flood of radiation— or "trade winds"—as a direct propulsive force. These trade winds are harnessed by sails of plastic film, coated with shiny evaporated aluminum.

Although the push of solar radiation is extremely weak—about the weight of four cigarettes per acre—it is ample in the friction-free, weightless vacuum of space to drive the Wind Ship at a constantly accelerating speed. For long trips into space, sails are several miles in diameter, cross-braced by plastic masts and fine, glass filament rigging. In the center of the sail, an inflated wheel-shaped hull is mounted in a tripod arrangement. This hull, powered by solar batteries, can revolve in any direction, providing artificial gravity for its crew and functioning as a gyroscope to stabilize and control the attitude of the sail.

In the illustration, a flotilla of manned Solar Wind Ships is approaching Saturn. To the right is Titan, largest of Saturn's nine moons and the only satellite in the solar system known to have an atmosphere. In the foreground, a crew of astronauts enters a small ferry-rocket, towed behind the Wind Ship. Since the Wind Ship cannot land on any planet, they will explore Titan in the Atomic-powered rocket, then rejoin the fleet for the remainder of the trip to Saturn.

Inertial navigation systems will play an increasing role in the exploration of outer space. ***ARMA***, now providing such systems for the Air Force ATLAS ICBM, will be in the vanguard of the race to outer space. ***ARMA***, Garden City, N. Y. A Division of American Bosch Arma Corp.

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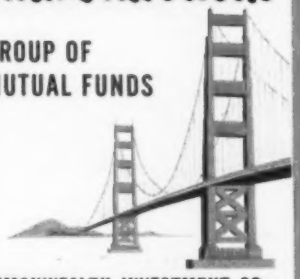

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". . . turn IMF into a true central bank for central banks . . ."

(STORY on page 118)

maintained since the end of the war in world trade and production."

As the liquidity squeeze develops, Triffin warned, the nations under pressure will have a choice of internal deflation, currency devaluation, or trade and exchange restrictions. These will tend to spread from the major countries to the rest of the world—and "may be further aggravated by speculative capital movements culminating in a financial panic a la 1931."

III. Can Crisis Be Averted?

Is there a way out of the crisis Triffin foresees? Many have been proposed.

• Mark up the price of gold? Walter Gardner of the International Monetary Fund attacked this idea at Elsinore, said it couldn't be done "without touching off anticipatory speculation on a major scale." Anyway, he said, the extra resources would go mainly to countries already well supplied with gold.

• Adopt flexible exchange rates? Triffin thinks this would bring even wilder speculation, and dangerous swings in the structure of rates. He points out that when some countries adopted flexible rates after World War I, the result was a complete currency collapse—as in Germany and Central Europe.

• Periodically increase the resources of the International Monetary Fund by getting nations to agree to increase their quotas at the Fund? The IMF's resources are used to aid nations in balance of payments trouble, and thus constitute, in effect, secondary reserves for central banks. Triffin agrees that increases in IMF quotas, such as the one that went into effect Sept. 15, can provide a "useful breathing spell."

But this can't get at the underlying problem, he argues. For basically, the fund gets its resources out of the U.S. balance of payments—since it is U.S. dollars, not the masses of bolivianos, cruzeiros, rupees, and so on that the fund hoards, that are in demand. And if the U.S. balance of payments is under continuous pressure, it won't be easy to get Congress to keep on putting up billions of dollars to augment IMF's holdings.

• **Triffin's Way**—Triffin's own proposed solution, presented at Elsinore, is fairly radical. His prescription:

Reconstruct the International Monetary Fund. Turn it into a true central bank for central banks. Permit it, by the same process of creating loans and deposits that any bank employs, to expand continuously the reserve base for the world's monetary system. Make deposits at IMF into a new international medium—the counterpart of gold reserves, and a substitute for national currencies as reserves.

Triffin spelled out his proposal in a paper to be published, together with the full Elsinore proceedings, by Macmillan & Co., Ltd., in London and St. Martin's Press in New York. He has added still more details in two articles this summer in the Quarterly Review of the Banca Nazionale del Lavoro, of Rome.

Here are the main provisions:

• All countries would stop using other countries' currencies as monetary reserves. They would be required to keep on deposit at IMF minimum proportion of their total national reserves, including both gold and foreign exchange. If their deposits of foreign exchange (including balances accruing to their account from foreign trade) exceeded the requirement—possibly 20% of their total reserve—they could exchange Fund deposits for gold.

• Reserve deposits at IMF would be just as usable as gold in international settlements. IMF deposits would carry exchange rates and convertibility guarantees that would make them, says Triffin, safer for reserve investment than any national currency holdings. They would earn interest at a rate determined by IMF earnings on its loans and investments—thus combining the security of gold reserves with the earning incentive of foreign exchange holdings.

• **Meeting Objections**—Triffin's plan has a basic similarity to the original Keynes plan at Bretton Woods for IMF. But Triffin attempts to deal with the two basic objections to the Keynes plan that led to its rejection 15 years ago—and have forestalled all subsequent attempts to revive it: (1) that it would lead to continuous inflation, as IMF loans and deposits continuously grew faster than world output and (2) that it would mean the surrender of national economic sovereignty to an international body. Triffin tries to deal with these objections (1) by setting a narrow limit on annual increases of IMF loans and deposits, to prevent the reserve base from growing faster than real trade and production; and (2) by restricting IMF's supernational authority and leaving plenty of room for nations and regional groups to set their own economic policies.

Nevertheless, Triffin is not optimistic about the chances that governments will eagerly leap for his scheme. He is aware that the cautiousness and conservatism of central bankers, and the strength of nationalism almost everywhere, work against any such quick acceptance. **END**

TRAILERS DRESSED HER FROM HAT TO HEELS

Miss, Mrs., and Mr., too, are the well dressed Americans they are today largely because of the mobility of the American Motor Transport system. It takes a lot of Trucks and Trailers, moving swiftly across the country day and night, to keep pace with the advancing styles, the seasonal changes, and the far-reaching distribution system of this country's vast apparel and retail industries.

Trailers brought most of the clothes you wear from the busy garment centers to the warehouses of your nearest city or the receiving door of your local clothier. But even before that they carried cotton and wool to the textile mills and bolts of finished fabric to the garment makers in a kind of cross-country production line that never ceases and goes everywhere. The new Fruehauf Volume☆Vans shown passing each other here, for instance, may well be carrying leather to a shoe factory and lingerie to a department store.

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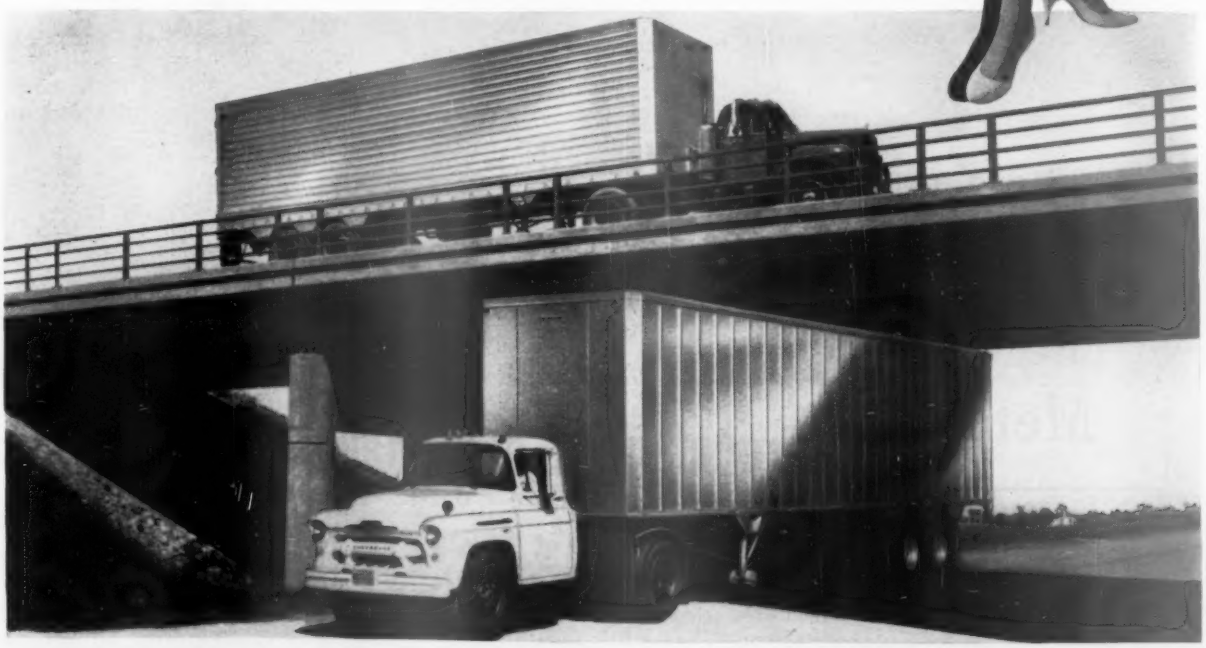

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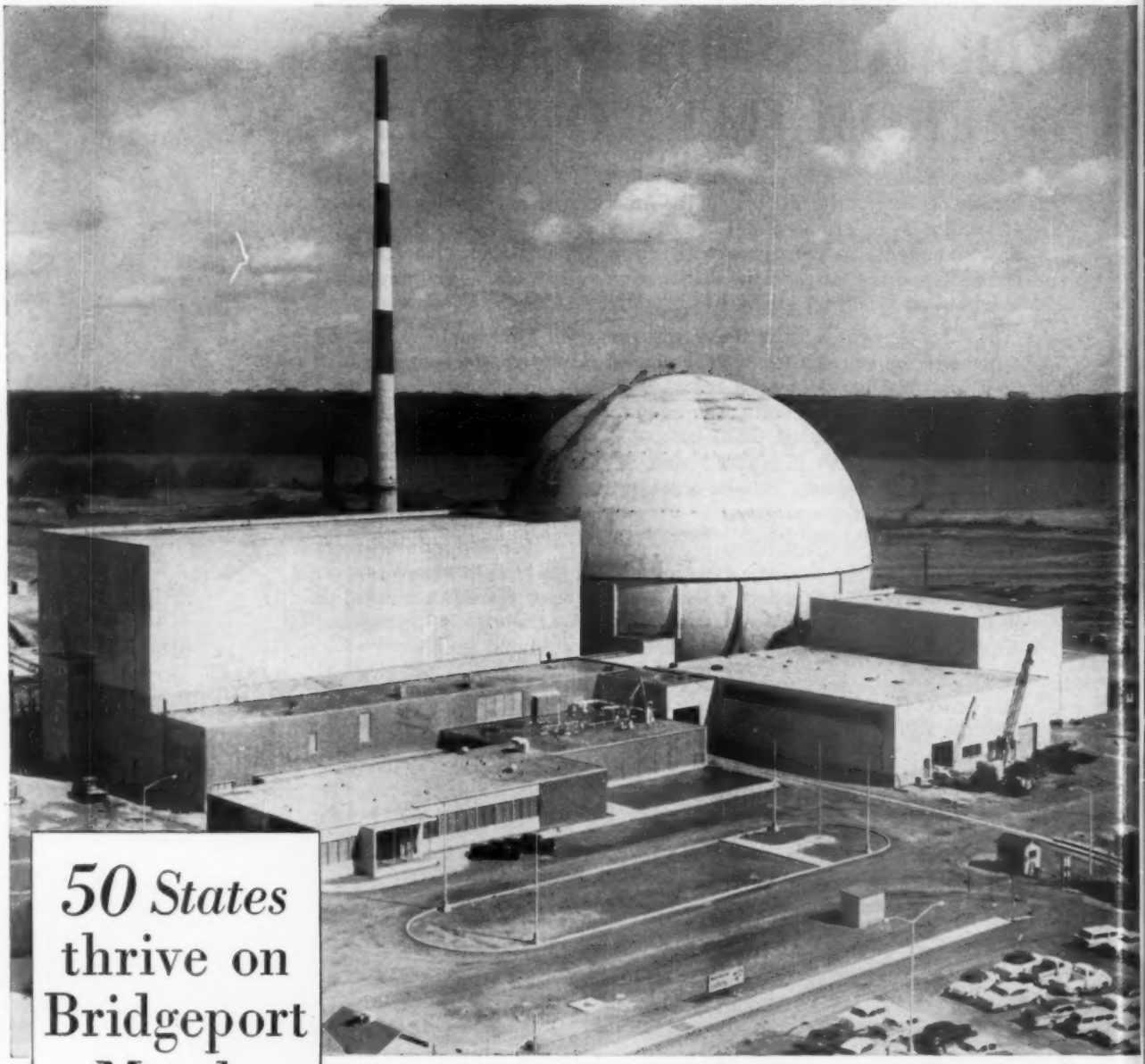

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Holds the Heart of a Nuclear Reactor— 35 miles of Bridgeport Zirconium Alloy Tubes contain the uranium in the new Dresden Nuclear Electric Power Station near Chicago. Designed and built by General Electric and Bechtel Corporation for Commonwealth Edison and the Nuclear Power Group, it is the first such plant built for private operation. Bridgeport led the development of seamless Zirconium tube, and is today its largest producer. This unique metal has low neutron-absorbing properties and successfully withstands the extreme heat and corrosion inside a nuclear reactor. To learn more about Bridgeport's special metals, write for booklet, "Bridgeport Special Metals Development Plan."

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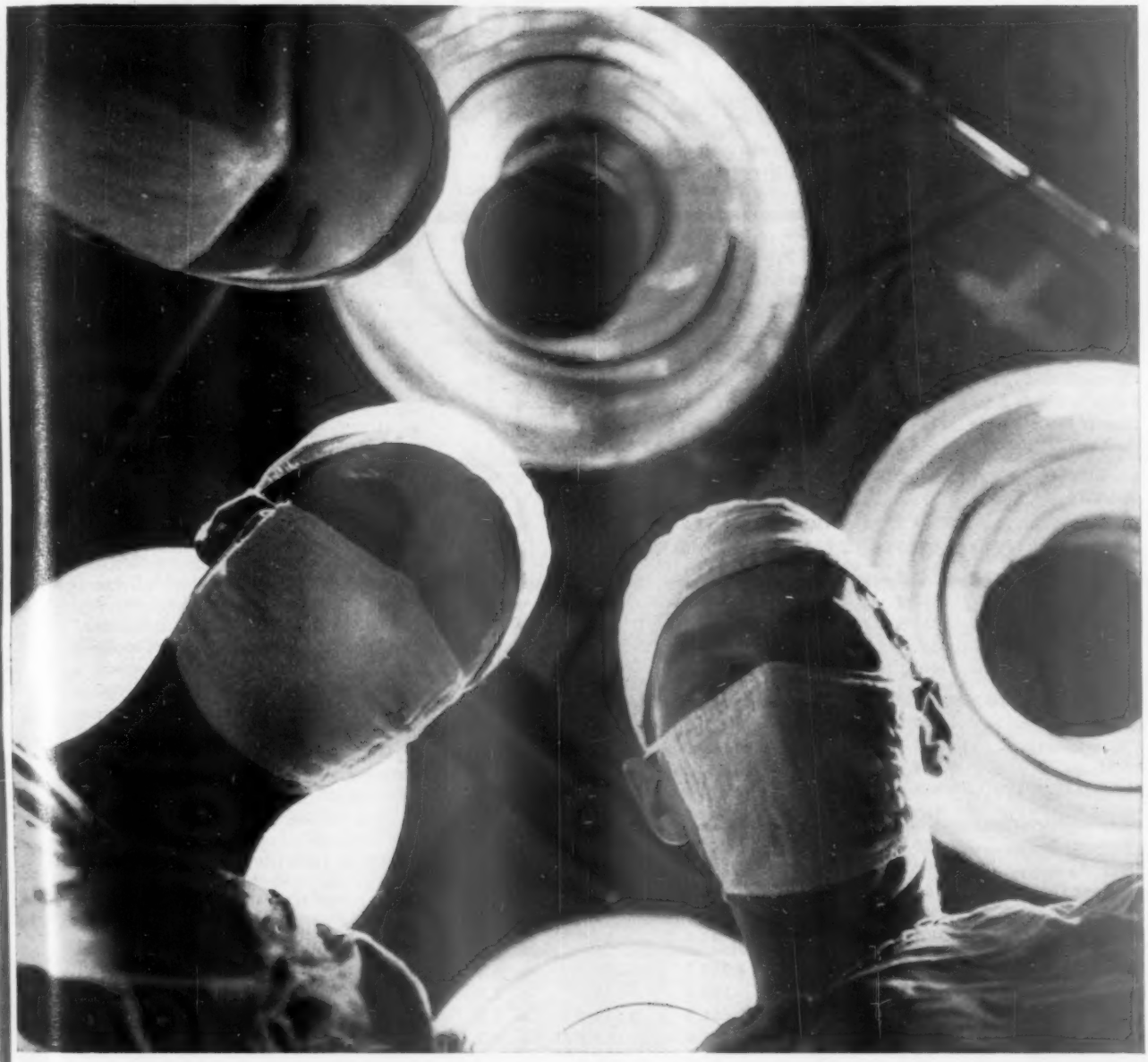

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Delaware: Earnings Above

MEASURE OF PERSONAL INCOME

Millions of Dollars (Seasonally Adjusted)

STATE	1953-55 AVERAGE	JULY 1958	JUNE 1959	JULY 1959	% CHANGE VS. YR. AGO
Alabama	$286.4	$380.4	$398.6	$405.3	+ 6.6%
Alaska	41.9	48.3	55.0	55.1	+14.0
Arizona	126.9	186.1	205.6	206.1	+10.7
Arkansas	153.5	186.6	197.8	202.9	+ 8.7
California	2,341.7	3,053.6	3,359.9	3,387.7	+10.9
Colorado	217.2	296.9	321.2	311.2	+ 4.8
Connecticut	440.7	546.3	577.3	591.4	+ 8.3
Delaware	78.6	103.4	114.0	112.0	+ 8.3
District of Columbia	158.2	182.6	191.1	193.3	+ 5.9
Florida	456.8	707.9	760.3	784.3	+10.8
Georgia	383.2	475.6	511.1	519.5	+ 9.2
Hawaii	76.0	93.8	101.5	103.2	+10.0
Idaho	74.5	97.7	98.8	98.5	+ 0.8
Illinois	1,677.5	2,011.5	2,209.6	2,236.2	+11.2
Indiana	663.5	753.3	858.1	853.9	+13.4
Iowa	357.3	435.7	469.2	478.7	+ 9.9
Kansas	281.8	342.9	344.1	358.9	+ 4.7
Kentucky	307.1	365.1	369.5	365.2	+ 0.03
Louisiana	318.3	420.1	434.1	443.6	+ 5.6
Maine	112.8	137.0	138.8	140.0	+ 2.2
Maryland	432.3	541.8	580.8	557.0	+ 2.8
Massachusetts	799.8	984.7	1,033.0	1,032.5	+ 4.9
Michigan	1,234.1	1,379.8	1,557.4	1,558.5	+13.0
Minnesota	434.8	548.0	571.7	575.1	+ 4.9
Mississippi	160.9	208.8	211.2	216.1	+ 3.5
Missouri	600.9	726.9	757.9	759.7	+ 4.5
Montana	92.3	110.2	115.3	112.5	+ 2.1
Nebraska	182.5	220.3	243.8	240.3	+ 9.1
Nevada	43.1	58.0	63.3	63.2	+ 9.0
New Hampshire	75.2	91.9	95.3	95.2	+ 3.6
New Jersey	982.9	1,209.6	1,280.1	1,281.7	+ 6.0
New Mexico	91.8	133.2	134.3	134.8	+ 1.2
New York	2,887.9	3,513.3	3,656.8	3,555.4	+ 1.2
North Carolina	429.0	538.4	577.9	588.5	+ 9.3
North Dakota	67.4	87.3	83.4	84.8	− 2.9
Ohio	1,476.3	1,703.0	1,930.6	1,926.8	+13.1
Oklahoma	268.5	344.0	334.9	341.4	− 0.8
Oregon	249.8	293.1	315.0	318.6	+ 8.7
Pennsylvania	1,678.6	1,974.5	2,108.2	2,124.8	+ 7.6
Rhode Island	129.9	146.0	156.9	158.1	+ 8.3
South Carolina	210.0	249.1	262.4	266.3	+ 6.9
South Dakota	73.7	96.1	99.8	97.3	+ 1.2
Tennessee	345.9	424.6	448.4	450.8	+ 6.2
Texas	1,132.9	1,438.1	1,468.0	1,478.4	+ 2.8
Utah	98.1	124.3	141.3	143.3	+15.3
Vermont	45.9	53.8	57.9	58.6	+ 8.9
Virginia	383.3	547.9	567.2	570.0	+ 4.0
Washington	418.0	490.9	522.4	523.5	+ 6.6
West Virginia	209.7	246.8	265.8	266.2	+ 7.9
Wisconsin	528.2	629.4	670.1	680.4	+ 8.1
Wyoming	45.9	56.5	59.1	58.1	+ 2.8
NATION	$24,363.5	$29,995.1	$32,085.7	$32,164.9	+ 7.2%

July figures preliminary; June 1959 and July 1958 revised.

©BUSINESS WEEK

For years, Delaware's economy has grown faster than the nation as a whole. As recently as 1956, its personal income per capita was 46.5% above the national average. But since 1956, Delaware's economy has lost some of its zip. Delaware is finding it hard to regain its old momentum.

The chart at right shows how Delaware has virtually failed to widen its lead over the nation in the last two and a half years. This pace—one that's almost even with the nation's or just a hair ahead of it—is something new for Delaware. So are the reasons behind some of the sharp wiggles you see in the Delaware curve (right).

While total personal income has slightly increased since 1956, the average income per Delawarean actually has declined from the 1956 peak of $2,894, and Delaware has yielded its spot as the richest state (per capita income) to Connecticut. Moreover, Delaware has not regained the high it set in 1956 in nonfarm employment. In July, the last month before the steel strike distorted statistics, U.S. nonfarm employment hit a record peak, 3.9% higher than a year earlier; in Delaware, employment was up only 2.7% above the previous July and below the 1956 mark.

• **High Influx**—Delaware's loss of the national lead in per capita income is traceable largely to an influx of low-income workers from other states, diluting the state's high earnings. This immigration accounts for about half of the state's annual population growth of 20,000. It brings Negroes from the South and from New York and Philadelphia, whites from border states and the Pennsylvania anthracite towns—all looking for work in construction, fac-

Before Steel

More people earned more money than ever before in July, according to BUSINESS WEEK's Measure of Personal Income, even though the steel strike clouded the income picture in the last two weeks of the month.

Employment figures for July don't show any effects of the shutdown, since they were collected just before it began. The income figures take in the entire month, but the strike's impact on them was relatively slight because, in most steelmaking centers, workers had heavy overtime earnings in the two weeks before the walkout and then drew vacation pay. The full results of the strike

Average but Not Up to Old Mark

tories, services, harbor operations, and the government.

Delaware is a small economic unit, 49th among states in size and 46th in population. Small changes create big swings in statistics. The 1956 employment high, for example, reflects the peak activity on construction of the Tidewater Oil Co. refinery at Delaware City, on which 10,000 men worked at one time. This refinery today employs an operating crew of 500 and a maintenance crew of 200.

A new built-in source of instability is a growing dependence on durable goods manufacture. Delaware felt it when employment was cut back during the recession in its relatively new auto industry. This year the Chrysler plant had to shut down for lack of glass from strikebound Pittsburgh Plate Glass Co., then Chrysler and General Motors surged as car sales boomed.

• **Chemical Industry**—Delaware's industrial wheelhorse is, of course, the chemical industry, and E. I. du Pont de Nemours & Co. leads all the rest as an employer. Chemicals employ 35% to 40% of all manufacturing workers and, because the industry pays well, provides more than half of the state's manufacturing payroll. More than 70% of the chemical workers are in home offices and research centers, which have been considered virtually immune to the business cycle.

That's why it was such a shock when du Pont last year laid off an undisclosed number of employees. Chemical companies have been rehiring very gradually. In 1957, they employed more than 25,000, up from 17,000 in a decade; last April, chemical employment bottomed out at 21,300.

Reemployment in the chemical industry has been sluggish. Many of the workers laid off by du Pont were engineers who design new plants; until the company begins a new round of expansion, it won't need them. Some jobs in home offices have been consolidated, and even sales increases don't make it urgent to recall office workers.

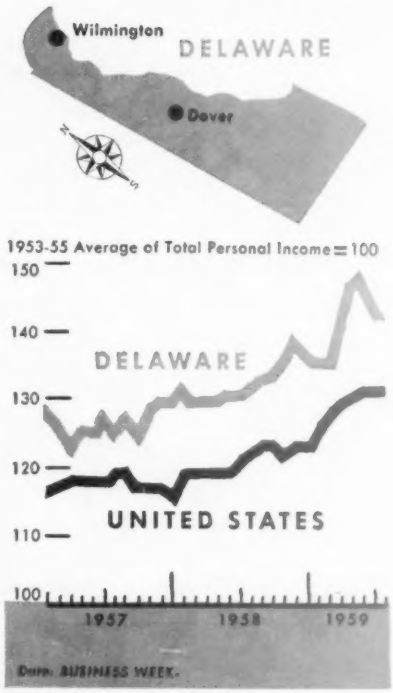
The recession dip could have been worse except that hirings by some employers over all tended to offset layoffs. As du Pont and General Motors were letting people go, for instance, Chrysler Corp. was building a work force to operate a converted tank plant for auto assembly.

• **Property Income**—Aside from its high income from manufacturing wages and salaries, chiefly in chemicals, Delaware maintains its high standing in per capita income largely because of its income from property, such as dividends, interest, and rent. Delaware obtains 24% of its personal income from these sources, compared with 12½% for the U.S.

When you think of Delaware and property, the name "du Pont" immediately comes to mind. There's little question that if the du Pont family ever moved out of the state, even if it left the home office and plants there, Delaware's total income would be dented.

In 1956, the last year for which federal figures are available, 25 residents of Delaware reported adjusted gross incomes of $1-million or more. There were only 269 such breadwinners in the whole country, and only New York with 73 had more of them than Delaware.

Names aren't divulged by the government, but it takes no wild guesswork to conclude that Delaware's list includes several du Ponts.



• **Big Earners**—The state's economy is more broadly affected by the high level of salaries and wages in the chemical industry, where many technicians and junior executives earn more than $10,000 a year, many are in the $20,000 to $50,000 bracket, and quite a few top $50,000.

These people, for example, have supported a steady market in housing, especially in the Wilmington suburbs in

Strike, Incomes Reached a New High

will begin to register in income reports for August, when more than 600,000 workers in steel, mining, and transportation were idled.

Across the nation, incomes mounted 7.2% over July, 1958, when employment and industrial activity were starting to perk up from the recession. Forty-eight states and the District of Columbia scored improvement over last year, although margins of gain narrowed considerably from the fat increases recorded earlier this year. States heavily dependent on agriculture lagged noticeably, mirroring the slump in farm prices and the demise of the soil bank.

• **Utah on Top**—Utah enjoyed the biggest year-to-year increase (15.3%) in spite of a prolonged drought that cut into farm receipts and a decline in lead and zinc output. Credit for the improvement goes to accelerated construction activity, particularly in homebuilding; healthy increases in copper mining, crude oil production, and prestrike steel output (Utah ranks 12th among the 31 steel-producing states); and the rise in employment in Utah's new defense-related plants.

Hot July weather drove record numbers to resort areas and created more jobs in tourist-serving enterprises. In many states, employment in trade and services recorded big yearly increases.

Total personal incomes in the first seven months of 1959 rose almost 8% over the like period last year, thanks to vigorous manufacturing activity and higher weekly earnings in most nonfarm industries.

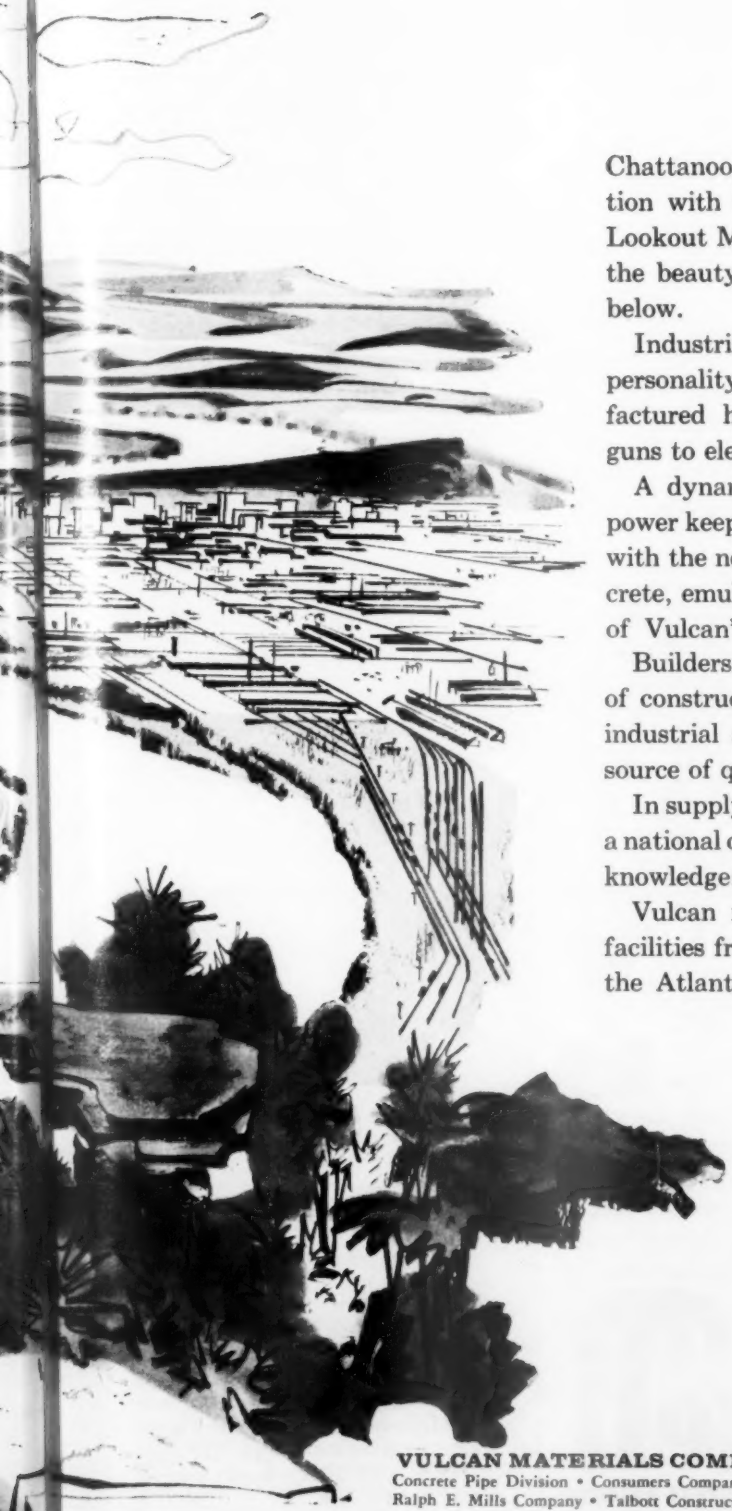
From June to July, incomes almost flattened out, with a barely perceptible month-to-month increase of 0.2%. Kansas and Florida bucked the trend and registered substantial monthly improvements—4.1% and 3.2%, respectively. Among the losers: Maryland, down 4.1%, and Colorado, down 3.1%.

vulcan materials

One of a series

Reprints suitable for framing on request

company / Chattanooga



Chattanooga captivates you quickly. It fires your imagination with Confederate cannons long-since silenced atop Lookout Mountain . . . then draws your eyes irresistibly to the beauty of the Tennessee River winding past the city below.

Industrially, too, Chattanooga presents a many-faceted personality. More than 1500 different products are manufactured here, ranging from radar-tracking anti-aircraft guns to electrical appliances and bathtubs.

A dynamo city, Chattanooga's abundance of electrical power keeps it growing in all directions. Feeding this growth with the necessary crushed stone aggregates, asphaltic concrete, emulsified asphalt and ready-mix concrete is the job of Vulcan's Chattanooga Rock Products Division.

Builders everywhere look to Vulcan for the basic materials of construction. Vulcan is also an important producer of industrial and agricultural chemicals as well as a leading source of quality electrolytic tin and high-yield steel scrap.

In supplying its products, Vulcan offers the advantages of a national organization, soundly backed by the fast, efficient, knowledgeable service that only local people can provide.

Vulcan maintains more than one hundred production facilities from the Great Lakes to the Gulf, the Rockies to the Atlantic Seaboard to serve builders of America *better*.

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New Castle County. Their stable demand is one reason why, during the past year's troubles, Delaware's housing industry failed to soar as in the nation as a whole. Volume now is running about even with last year, with lower-priced homes for the immigrants making up a larger share.

Bankers see a tendency throughout the local executive ranks to spend a disproportionate amount of income on housing, as a status symbol. And the tendency is, if anything, stronger at the lower end of the salary scale. It's not unusual, says one banker, for a $10,000-a-year man to buy a $30,000 house, even though rule of thumb says he should buy only a $25,000 house. He may be encouraged by willingness of lenders to grant higher mortgages because of Delaware's long-term stability.

• **Big Spenders**—With their lavish investment in houses, the chemical people lately have been stepping up purchases of furniture and appliances. Wilmington stores say that sales of higher-priced items have improved particularly.

Much of the buying is on time. Banks note that many high-salary customers who could pay cash don't mind buying on credit. The loan delinquency rate in Wilmington is negligible. But one bank's loan officer noted another type of annoyance in dealing with the well-paid technicians: "They come in here with their slide rules and figure interest down to the fourth decimal."

• **Big Investors**—Brokers agree that a lot of Delaware money has been going into the stock market, and savings bankers unhappily note that some of it is coming out of savings accounts.

However, Wilmington investors are regarded still as conservative. Employees of du Pont, Atlas, and Hercules buy shares of their own companies. Then they buy American Cyanamid and Union Carbide because, a broker explains, "these people have great respect for their competitors." And they buy GM "because this is a General Motors town."

• **The Future**—For the long term, such economists as Charles N. Lanier of the University of Delaware see some growth prospects for the state in these terms. Lanier visualizes a rounding-out of the oil-refining and automobile complexes with more satellite plants. Tidewater recently revealed that it is talking to chemical companies about petrochemical operations at its refinery.

Lanier also feels that Delaware's location on the Boston-New York-Washington axis of population density should attract distribution facilities, even though Delaware itself remains a small market. Distribution plants are even now being built by companies such as General Foods. END

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"Dust" created in your production processes may be an important source of potential profit: eight out of ten Buell dust recovery installations pay for themselves in five years or less. Buell extra efficiency delivers extra income. ■ Dusts of recoverable value are generated in foundries, chemical process equipment, mills, dryers and many other industrial locations. To recover these dusts, or collect nuisance dusts, we have engineered and manufactured more than 1300 installations using high efficiency cyclones, electric precipitators, or combination cyclone-precipitator systems. ■ Worth looking into? No obligation, of course. For a copy of Catalog 101 or further information, call the Buell representative listed in the telephone classified directories of most major cities under "Dust Collection Systems". Or write Dept. 30-I, Buell Engineering Co., Inc., 123 William St., N. Y. 38, N. Y. (Subsidiary: Ambuco Limited, London, England.)

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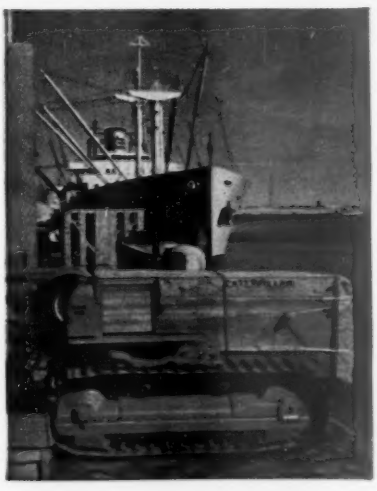
Photographed by Fritz Henle on a construction site overlooking Caracas, Venezuela



How to pamper a big Cat

This caterpillar tractor is a tough performer. But parts of its anatomy can be tender in transit. So Alcoa takes unusual precautions to assure delivery in factory-fresh condition.

The special handling care that Alcoa gives everything it carries has won the respect of exporters who have products moving to the Caribbean.

Alcoa provides frequent, regular service from Atlantic and Gulf ports to Venezuela, Puerto Rico and other Caribbean areas. If you export, or would like to tap the thriving Caribbean market, write today for our "Caribbean Handbook"—the complete guide to Caribbean shipping.

CARIBBEAN CRUISES—Three choices: on de luxe passenger ships, comfortable freighters, new ore carriers. From New Orleans, New York, Mobile. See your travel agent or write today to "Travel Dept."

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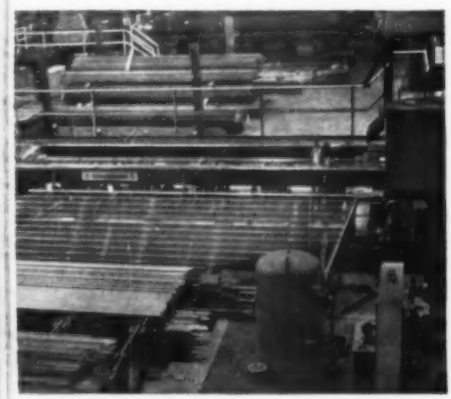
75

There are 75 reasons why J&L tubular products are of highest quality

J&L makes over 75 tests and inspections of its tubular products. Here are 18 of them. This stringent control assures a quality never before attainable in the industry.

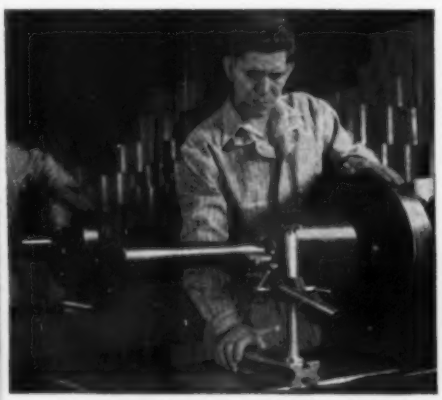
1 This ultra-sonic tester is one of the most advanced process control devices used in pipe-making. It provides an immediate picture of weld soundness in all J&L Electricweld Line Pipe.



8 Five lengths of Jal-Con-Weld standard pipe undergo simultaneous pressure testing on this modern Schloemann hydrostatic tester.

9 Here Jal-Con-Weld standard pipe is being wound around a mandrel. This is another test of the ductility of the pipe and the strength of the welds.

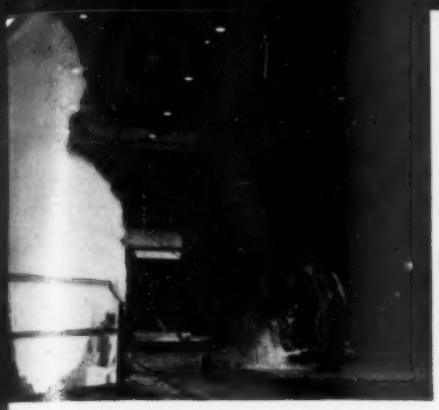
10 This is a flattening test to determine strength of the weld, ductility and other qualities of the steel in Electricweld Line Pipe.



14 These inspectors are checking thread alignment on Buttress Thread Couplings. Proper alignment is essential to good stabbing and true spinning of casing joint.

15 Each length of J&L Quench and Temper high-strength casing is subjected to full-length magnetic particle inspection. The slightest surface defect is distinctly visible under the ultraviolet light.

16 This inspector is testing the angle and diameter of the sealing member on pin end of Grayloc Tubing. All dimensional characteristics are checked for accuracy.

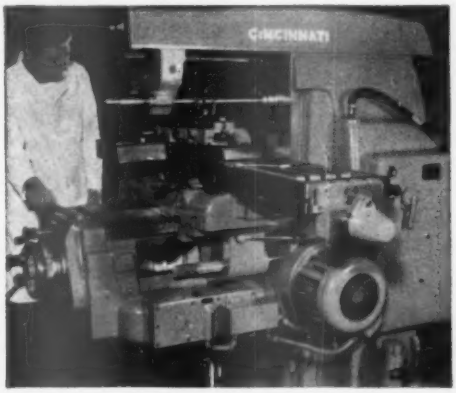


J&L inspectors are taking a steel sample from a basic oxygen furnace for thorough chemical analysis. A record of each heat is kept all through the manufacturing process.

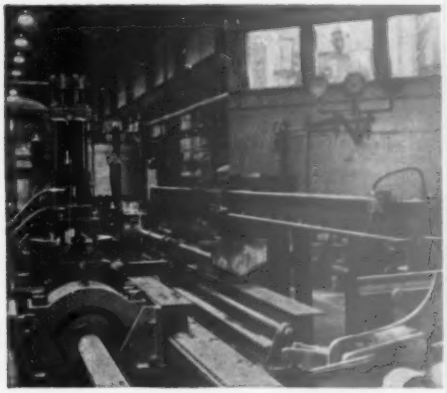
3 This Spectromet unit provides a simultaneous analysis of alloying elements in the J&L steel used for tubular products.

4 In a J&L laboratory, this metallographer is examining the structure of a steel specimen.

This J&L laboratory technician is testing a specimen cut from finished pipe to determine its compliance with specified yield, tensile and elongation requirements.

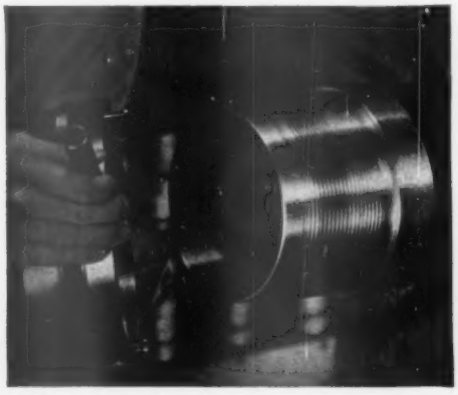


6 This milling machine operator is cutting the notch in a specimen for Charpy impact test. The Charpy test determines notch toughness of the steel.



7 This is the world's highest—pressure production tester. It is capable of applying hydrostatic pressures up to 20,000 pounds per square inch.

11 This skilled inspector is examining the internal surface and ends of J&L casing to insure further the final high quality of the product.



12 This is one of many dimensional measurement checks made on each joint of Extreme Line Casing (produced under license from National Supply Company).

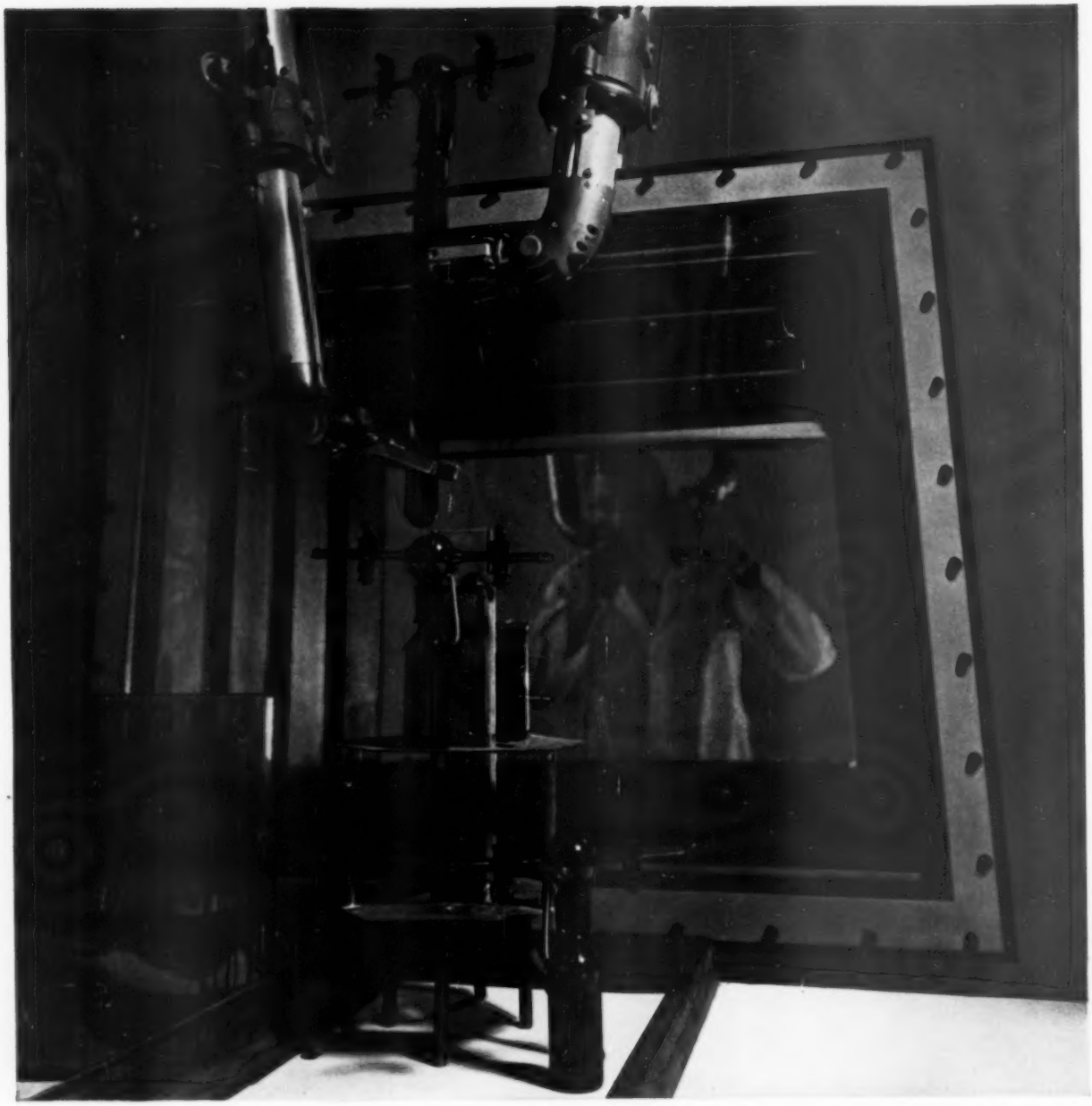
13 Jones & Laughlin inspector, with surveyor-type transit, carefully checks thread alignment on integral joint drill pipe.

Jones & Laughlin Steel Corporation

PITTSBURGH, PENNSYLVANIA

17 Upset ends of Blue Ribbon and Blue Ribbon Vanadium Drill Pipe and P-105 grade tubing are shot blasted to provide clean surfaces for magnetic particle inspection.

18 This modern collapse testing equipment exerts pressure up to 25,000 pounds per square inch. exceeding all published requirements.



Glass radiation shielding from Corning can be seen at practically all large atomic research laboratories, in atomic submarines, and in X-ray rooms.

Vicious gamma rays bounce off glass that's 50% lead

Three seconds inside this room is lethal. There's that much radiation bouncing around.

The young man on the outside of the window looks calm enough, though. There's four and one-half tons of lead inside the glass, protecting him from all radiation.

Optically, the glass is as clear as the best pair of sunglasses you can buy.

Putting this much lead inside a glass and keeping the glass clear is one of many wonders performed at Corning every day . . . one of the many reasons we say "Corning can do almost anything with glass."

Like windows that bounce back heat. Corning windows used in steel mills reflect infrared waves, let operators get close to their work in comfort.

Like glass that never corrodes. Hot acids and biting alkalies flow through PYREX brand pipes and drainlines without a sign of corrosion.

If you ever have a problem involving a material that must have a combination of outstanding properties, take a close look at glass from Corning. The chances are really very good that we've already solved the problem with one of the 33,000 glasses we've developed and can make at the drop of an order.

"This Is Glass" is a colorful bulletin that tells a lot more about all this. For a copy, address yourself to 46 Crystal Street, Corning, New York.

CORNING GLASS WORKS

CORNING MEANS RESEARCH IN GLASS

CORNING CAN DO ALMOST ANYTHING WITH GLASS

INTERNATIONAL OUTLOOK

BUSINESS WEEK

SEPT. 26, 1959

The deficit in the U. S. balance of payments has touched off a struggle within the Administration over foreign aid money. The issue is whether a country receiving economic aid should be free to spend U. S. funds in other countries or should be required to use them for U. S. goods.

The financial agencies—the Treasury, the Federal Reserve Board, and the Export-Import Bank—are pushing proposals requiring that more foreign aid funds be spent in the U. S. The State Dept. is bucking the idea.

The Treasury doesn't argue that all aid funds should be tied to U. S. purchases. It wants to halt U. S. financing of exports from countries that can afford to finance their own trade. The problem is to distinguish among the recipient countries. For example, Korea still would be permitted to spend U. S. aid funds in the cheapest markets, since it can't count on getting financing from Europe. But India, which should be able to obtain European credits for what it wants to buy in Europe, might be required to spend all U. S. aid funds in this country.

State argues that the game wouldn't be worth the candle, that the political losses would more than offset any improvement in the U. S. balance of payments. The U. S. would be accused of turning back to protectionism—and other countries might retaliate. At the same time, economic development in a place like India would be slowed down while New Delhi dickered over financing.

The effects of the Treasury proposal on the U. S. balance of payments are hard to figure. The main impact would be on economic aid granted by the International Cooperation Administration. Less than $500-million of ICA's outlays are spent on foreign goods each year. Of the total, about $110-million is spent in underdeveloped countries for such items as sugar. Another $120-million or so goes to Japan. The rest is spent in Europe, with perhaps $150-million going to countries (especially Britain and Germany) that are in a position to finance more of their own exports.

The outcome of this debate probably depends on whether there is a real improvement in the U. S. balance of payments in the months ahead. No decision is likely until early next year. Meanwhile, just talking about the problem may improve the U. S. position. It may put extra steam behind the Administration's effort to get other countries to scrap all discrimination against dollar goods.

The Ex-Im Bank hasn't waited for this. In a move to encourage U. S. exporters, it has liberalized its terms. Exporters now are required to finance only 12% of foreign sales rather than 20%—something that brings Ex-Im's terms for medium-term export financing closer into line with European practice.

—•—

British election polls are beginning to show a shift to the left. One poll this week indicated that the lead originally held by the Conservatives has been cut in half. It seems that the "don't knows" are making up their minds and declaring mainly for Labor and the Liberals.

There are other reminders in Britain this week that the election outcome is not a foregone conclusion, that Labor has an outside chance. For example, prices on the London stock market are dropping, with steel stocks

losing ground for the first time in months. (Labor is committed to renationalizing steel.)

Then there's the fact that Labor may be able to exploit the arrest of an absconding London financier and the financial troubles of the Jasper group of real estate companies (page 155).

—•—

West German businessmen have decided to show more interest in Soviet bids for chemical plants, electrical equipment, machinery, and steel.

In the past, most German companies have bowed to government pressure, treated Soviet orders with considerable reserve. As a result, they say, they have lost some profitable business—mostly to the British.

Now the German attitude could be put this way: Washington has let down the psychological and moral bars by having Premier Khrushchev visit the U. S. It's time to start scrambling for Soviet business.

—•—

At midweek, Paris was anxiously awaiting the Algerian Nationalists' reply to de Gaulle's peace plan (BW—Sep.19'59,p157). There seemed little chance of an outright rejection by the FLN (National Liberation Front), largely because the U. S. and Tunisia have swung to de Gaulle's support. However, some Paris observers expect the FLN to come back with pretty stiff conditions, including some that de Gaulle cannot accept.

According to these observers, the FLN will take a line like this: We will agree to discuss arrangements for a cease fire and also accept the idea of holding a referendum to determine Algeria's political future. But the referendum must be held in a matter of months, rather than in four years, as suggested by de Gaulle. Finally, Paris must reverse its position and recognize the FLN as the legitimate spokesman for Algerian nationalism.

—•—

A drastic overhaul of Red China's government is in full swing—just on the eve of next week's 10th celebration of the Communist victory in 1949.

Main target in the reshuffling is the armed forces. Peiping has put Gen. Lo Jui-ching, secret police chief, in charge of the armed services. It is even shifting personnel in the second echelons of government.

A full-scale purge may begin soon. Already, Peiping's propaganda guns are blasting away at "neo-Rightists" and "counter-revolutionaries."

The shakeup stems primarily from Peiping's troubles with economic development.

A month ago, Peiping admitted that its "great leap forward" was stumbling. It revised "distorted" production statistics for 1958, modified ambitious output targets for 1959 (BW—Sep.5'59,p36). It even eased strict enforcement of the militaristic communes—the core of Peiping's effort to speed economic development. Top professional soldiers balked at participating in the unpopular commune scheme.

Government shakeup may have other reasons, too. Red China has run into serious difficulties in India and Southeast Asia. Its warlike moves in both places have proved that Red China is powerful. But the big-stick policy, coupled with domestic setbacks, also has weakened China's political appeal to neutralist Asian countries.

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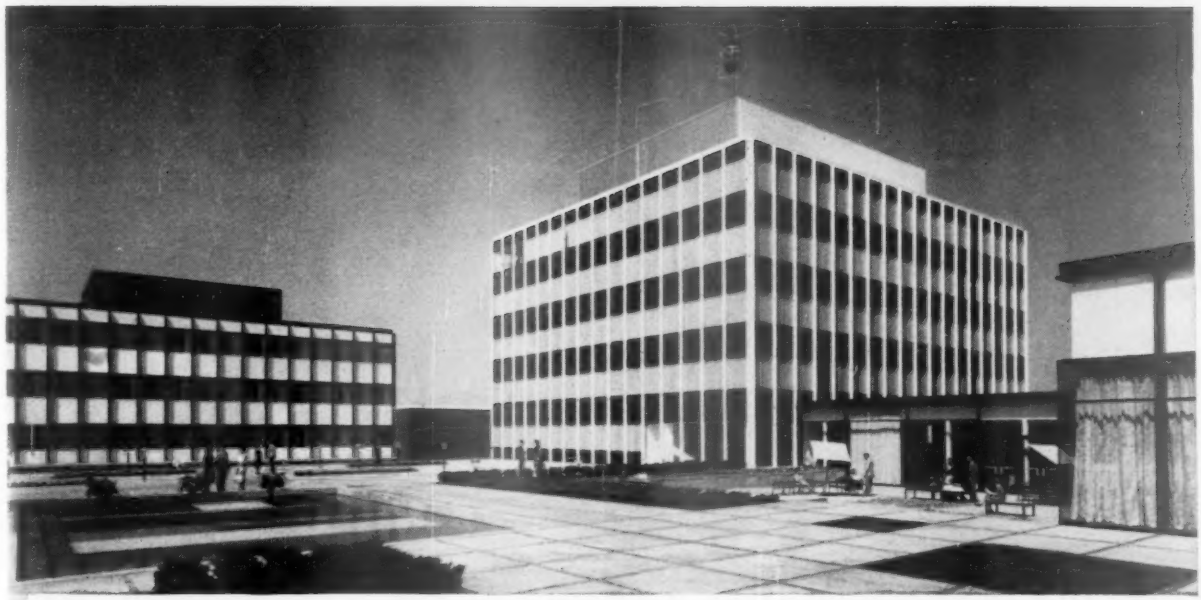

engineered for thinking...with 22 *quiet* B&G Boosters

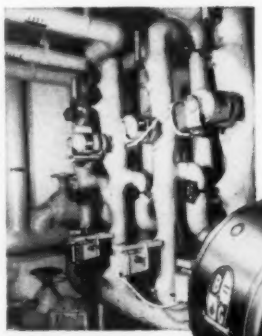

Photo shows B&G Boosters as installed to supply heat to the various zones in the International Minerals and Chemical Corporation's buildings.

B&G Booster Pumps are distinguished by *silent, vibrationless* operation. Contributing factors are quiet motors, designed and built in the B&G plant... oversized shafts...long sleeve bearings ...noise dampening spring couplers... oil lubrication and leak-proof seals.

International Minerals and Chemical Corporation's new administration and research center, Skokie, Illinois, has been described as "engineered for thinking." In keeping with that objective, twenty-two B&G Boosters were selected as the pumps for the forced hot water heating system in the four buildings. In addition, anti-freeze solution is circulated through the snow-melting panels...*all without distracting noise!*

B&G Boosters and Universal Pumps are designed and built specifically for circulated water heating and cooling systems, in which they satisfy the all-important requirement of *quiet* operation. Over 3,000,000 are today installed in such systems.

The same standards of advanced engineering and quality manufacture apply to the widely diversified line of B&G products. Manufactured in five plants, B&G equipment for home and industry is distributed and serviced nationally.

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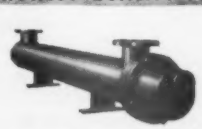
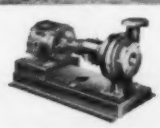
Booster Pumps

Package Liquid Coolers

Condensing Units



Heat Exchangers



Centrifugal Pumps

Oil-less Air Compressors

CAUSTIC SODA HELPS MAKE A HIT OUT OF A MISS!

A showgirl's life is made up of a million things. Not excluding make-up, scripts, costumes, scenery, lights, cameras, jewelry and, of course, rugs in the theatre for the audience to walk on and seats for them to sit on.

This world of a showgirl, and your world for that matter, is enveloped in products manufactured, treated, or processed with Columbia-Southern caustic soda or some compound made with it.

Few persons realize the scope and influence of this one chemical, and the necessary part it plays in every facet of living. Columbia-Southern caustic soda is used in cosmetics, rayon, metals, wool, leather, paper, ink, plastics, paints, rubber, oil . . . well, you name it.

Caustic soda helps make the multitudes of American products more economical, longer lasting, better looking. It helps make these products faster, too, and helps them perform better.

Caustic soda is one of the principal chemicals of Columbia-Southern, a leading supplier of basic alkalies and related products.

COLUMBIA-SOUTHERN CHEMICAL CORPORATION

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COMPANIES

Alcoa Woos the Young Designer

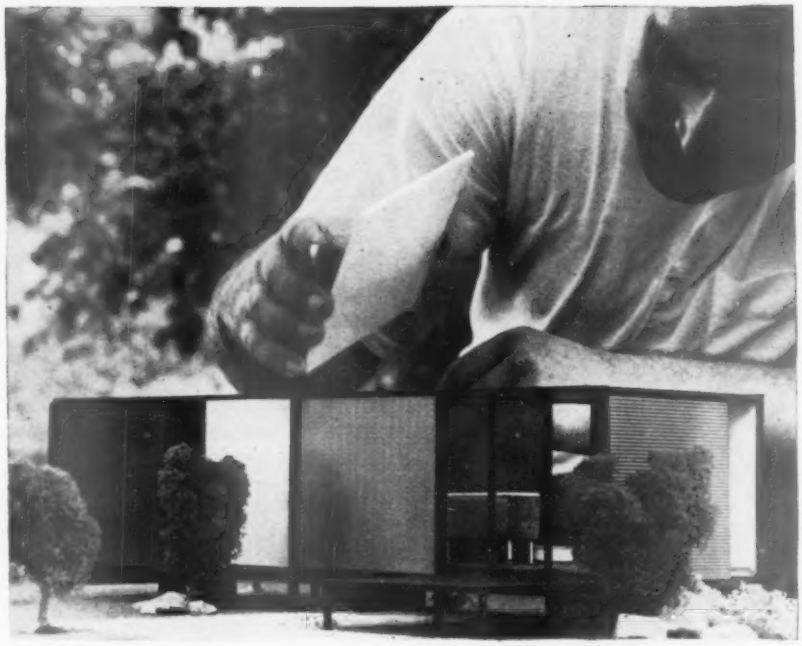
Winning student designs point to new uses for Alcoa product —and, it hopes, to a designer generation sold on aluminum.

Houses built out of modular "add-on" units, and expansible roof structures for warehouse or exhibit areas may not seem such a long jump for aluminum. But if these designs conceived by student designers for Aluminum Co. of America (pictures) catch on, your company restaurant may be dispensing eggs out of aluminum foil packages, and your men may be scooting around the factory on aluminum "power skeeters."

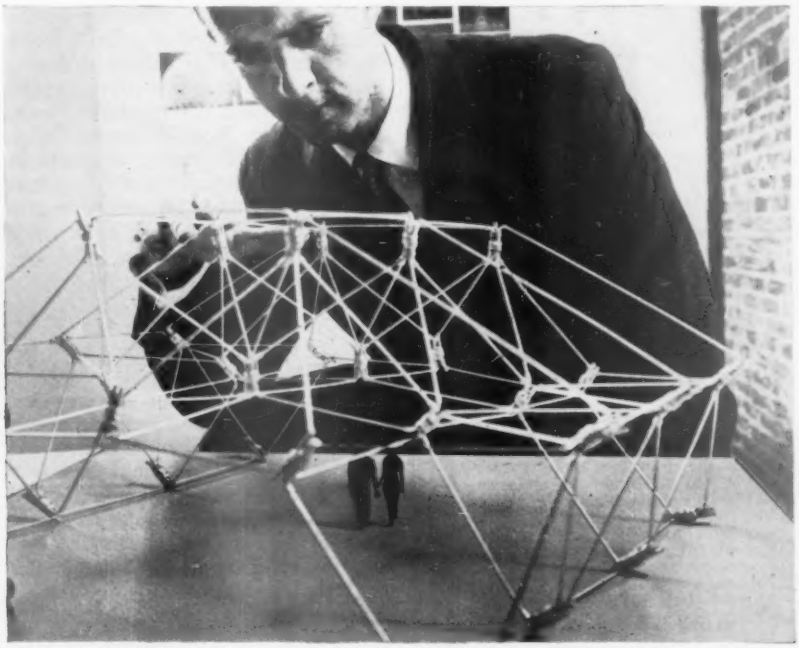
For Alcoa, these novel designs—among the winners of the company's first Merit Awards for industrial design students—have a double purpose. Not only do they point to new ways to sell the company's product, but they also aim to win friends for aluminum among the coming generation of industrial designers.

• **Pitch**—The contest that turned up these winning designs is part of a larger Alcoa drive to make industrial designers aluminum-conscious. Like other professional men, industrial designers shy away from advertising their own services. So for the past three years Alcoa has been doing it for them by advertising "name" designers and their ideas.

Now, through the contest just concluded, the company is out to plug youngsters as well as established names. Through this winter, several full-page ads, each featuring one of the young designers and his winning creation, will



ROOMS to add on as you need them, in 10-ft. square modular units, are feature of movable aluminum home designed by William E. Stumpf, University of Illinois. Units can be added at any side or on top, could be used in motels or lodges as well as homes.



MOVABLE ROOF for warehouse areas, fair grounds, arenas, exhibits—designed by Herbick Van Reisgen, Philadelphia Museum School of Art—is made of tubular aluminum members, can be expanded or contracted at base on all sides, left open or covered.

SCOOTER of aluminum—for factory personnel, mailmen, resort sightseeing—was designed by Louis Richards, Illinois Institute of Technology. It runs on model-airplane engine at front, starts with push of foot, makes 4 to 12 mph.

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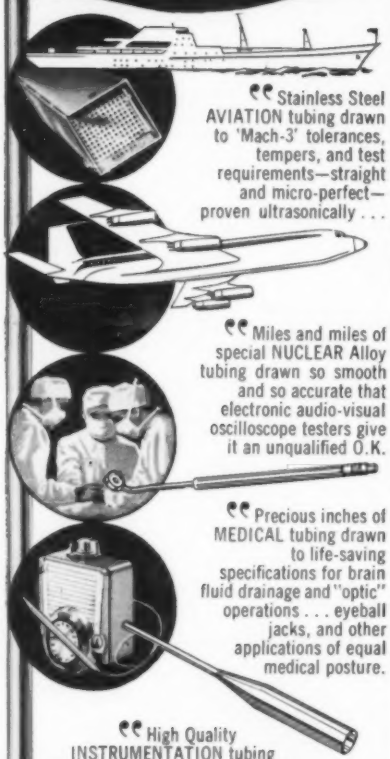
To Your Tubing Problems



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The Mark of Quality TMI

add a youthful touch to Alcoa's design-promotion ad program.

"In effect," says Sam Fahnestock, Alcoa's chief industrial designer, "we're giving each winner a full-page, situation-wanted display ad, complete with endorsement."

• **Contest**—The company sponsored the student design contest at five schools—Syracuse University, Pratt Institute, Illinois Institute of Technology, University of Illinois, and Philadelphia Museum School of Art. The school faculties chose the winners.

The tasks set for the design classes varied from school to school.

Syracuse was the most fanciful in its requirement. Its project was "to invent a simple machine that would give you a gumball, provide entertainment, and operate for a penny." Arthur Goodbread—the fifth of the Alcoa winners—thought up an elaborate device complete with an umbrella top that opens, a turkey-feather pinwheel that spins, and a chute that eventually deposits the gumball.

At Pratt Institute, which called for "something new and needed, made with aluminum," Samuel Lebowitz came up with a new idea in egg packaging for restaurants, military bases, or other mass feeding operations—a continuous strip of heat-sealed aluminum foil pouches, each containing a shell-less egg, needing no refrigeration; and an automatic dispenser, also aluminum.

• **Wooing**—Alcoa is following up the student design contest with a book, Design Forecast, for industrial designers and corporation executives; the announcement and advertisement of the winners of the Alcoa Industrial Design Awards for "outstanding products already on the market"; and promotion of funds for industrial design departments in design schools and universities.

All this, naturally, aims at selling more aluminum. But why does Alcoa woo the industrial designer, rather than the manufacturer who buys the metal? A company spokesman sums up the idea: "We believe industrial designers are increasing their influence every day, right to the point of specifying a particular company's raw material."

Alcoa's staff of five designers may seem a tiny group alongside the 50 designers employed by one of its largest competitors, Reynolds Metals Co. But Alcoa thinks its approach—simply offering technical assistance to outside designers and trying to entice them to use more aluminum—will win in the end.

Alcoa counts, too, on its efforts to catch them young. Besides the contest, its student design program includes offering to industrial design departments of schools and universities complete reference libraries on aluminum, visiting lectureships by Alcoa designers, and free metal for student projects. **END**

"He got the idea from a science fiction movie."

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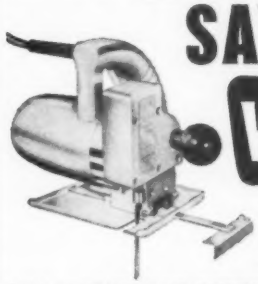

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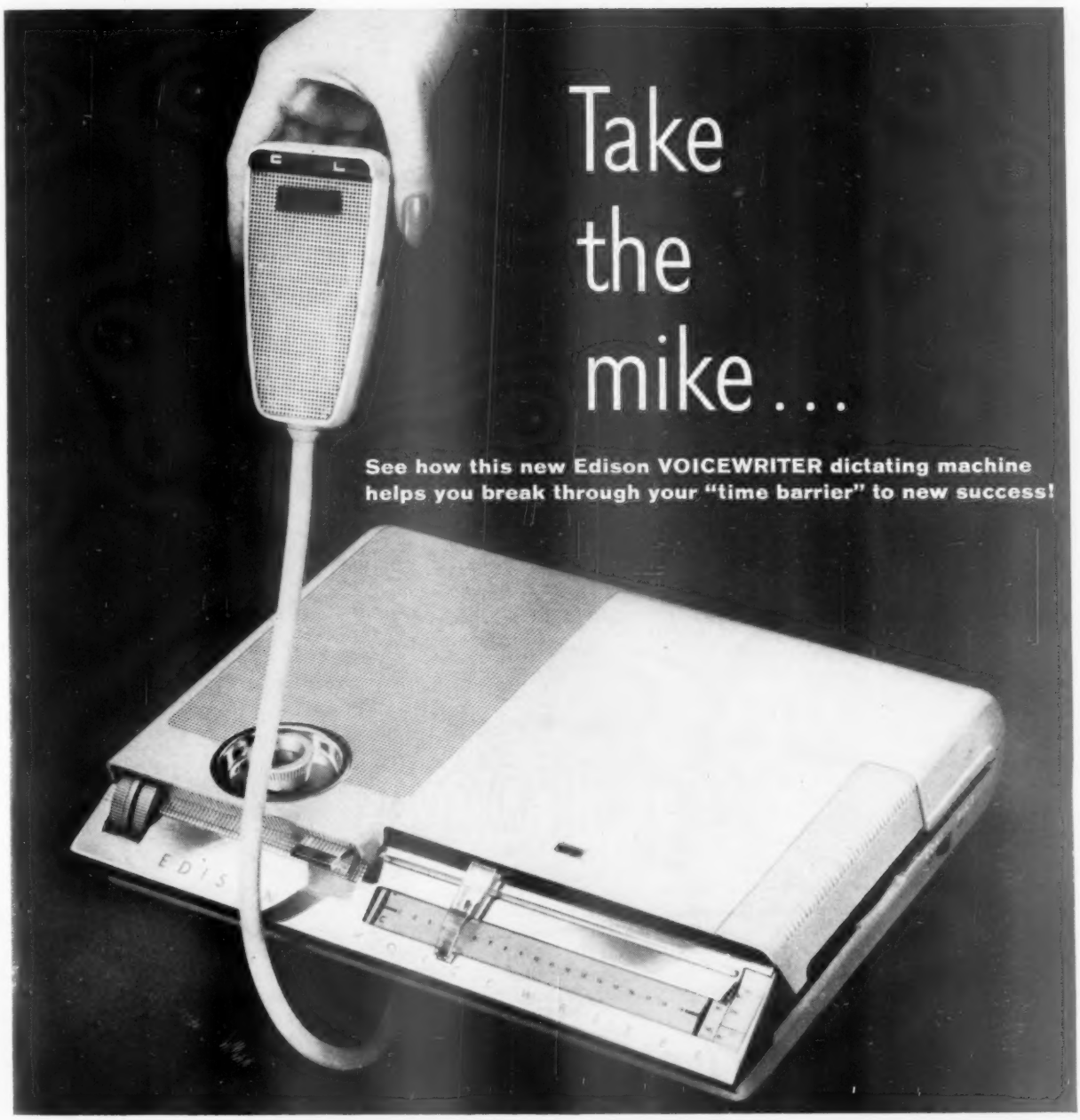
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THE MARKETS

Does Credit Pinch Hurt Stocks?

● **Very badly, say some analysts, pointing to the higher yield of bonds. Money is being drawn out of the stock market and into debt issues, they suggest.**

● **Hardly enough to matter, the majority of Wall Street men say. They're coming around to the belief that other factors are much more important in causing the recent decline in stock prices.**

Ever since the stock market began sliding in August, Wall Street has been talking in dire tones about tight money. According to some analysts, it is tight money that is responsible for the drop; others are saying that, even if high interest rates and a growing scarcity of credit haven't been the main factor in the present decline, they are sure sometime to bring about an end to the bull market.

There's no question that money is tight (page 25). The cost of borrowing is higher than it has been anytime since the 1920s. And the Federal Reserve, which is pursuing a restrictive policy aimed at making credit less available and more expensive, has put into effect a number of specific controls over stock market credit.

• **Clamping Down**—Thus, traders and investors buying stocks must put up 90% in cash on all new purchases. And if they already have an account which is "under-margined"—having less than 90% in cash—50% of the proceeds from any sale—unless there's a one-day swap—must be used to bring the account toward the 90% figure.

Moreover, there's been a definite clamping-down on money lenders, whose willingness to extend credit at high interest rates helped provide a lot of speculative froth earlier in the year. New Fed regulations have forced some lenders to shut up shop; others have been told by the banks that they won't be getting any new funds.

• **Only One Factor**—Despite all these moves and all the talk, the impact of tight money on the market is probably minor. It is only one of a number of factors that have brought about a change in investor attitudes, a change that is reflected in lower prices.

Tight money is probably less important than investor uncertainty about the business outlook brought about by the prolonged steel strike. It is less important, too, than Khrushchev's visit, and the possibility that it may eventually bring about a cut in defense spending.

This is not to say that tight money, or the fear of tight money, doesn't have some influence. But up to now at least, the higher yields that are available on fixed income securities have not tempted big institutional investors to shift from stocks to bonds. Some institutions have sold stocks and invested in short-term debt obligations, waiting to see just what will happen in the market. But there has been no significant shift into long-term bonds.

• **Bearish View**—It seems clear that Wall Street is more worried by the prospect of tighter money to come than by the actual tightness of the moment. Most analysts say that tight money cannot, by itself, bring about a bear market.

Some analysts, in fact, are beginning to say publicly that the bearish sentiment caused by fears of tight money has been overstressed. They concede that the rapid rise in interest rates somewhat neutralizes the inflationary forces that might be expected to favor stock prices. But they feel that too much emphasis has been placed on the effects of tight money in the market itself.

• **Solid Foundation**—Credit restraint, so their reasoning goes, has exerted great influence over stock prices in the past, but it has not been a prime mover; it has only an indirect influence on stock prices. They agree that tight money can impair business expansion if pressed long enough and hard enough, but they feel that there are many overriding influences in today's stock market that nullify credit restraint's influence on stock prices.

One of the most significant, they feel, is the financial strength of big corporations.

According to one analyst, "Tight money has served to damp down small business activity in the past, but it has an effect on big business like a flea biting an elephant." He, along with most other Wall Street professionals, thinks big business won't be diverted from expansion by high borrowing rates—unless they really go through the ceiling. Big companies rely heavily on internal funds.

The SEC this week, for instance, said corporations invested $6.9-billion in plant and equipment and $800-million in other assets in the second quarter, plus adding $3-billion in working capital. About $8.3-billion of this $10.7-billion expansion, SEC said, was financed from depreciation accruals and retained earnings. Long-term borrowings accounted for only $1.6-billion, while sales of new stock brought in only $800-million.

The small volume of new stock issues despite the high level of stock prices is another reason most analysts feel prices will resume their climb. "Companies aren't manufacturing stocks," says Armand Erpf, head of research for Carl M. Loeb, Rhoades & Co., "and demand far exceeds supply."

• **Steady Demand**—Erpf points to continued demand for equities, rather than bonds, as a key to today's stock market. Erpf takes the position that compulsive buying of equities—as seen in the thirst for electronic shares earlier this year—is over. But he believes that in recent years the public has awakened to the appeal of equities and will continue to buy common stocks steadily. He also looks for steady buying of equities from mutual funds and pension funds, despite the inverse yield gap between stocks and bonds.

Erpf believes any rise in prices will be tempered by the new wave of anti-inflation thinking in the nation—evidenced in the new labor legislation and the stiff bargaining by steelmakers—but he thinks tight money's effect is overrated at this point.

• **Other Thoughts**—Harold B. Dorsey, head of Argus Research Corp., goes even further. As Dorsey sees it, the very fact that credit is now so tight might be an important ingredient in the Federal Reserve Board's future determination of credit policy. He suggests that it may be time to "discount and temper the bearish sentiment we have been placing on the monetary factor for the past three months."

Taking a middle road and probably more typical of Wall Street opinion is Stanley A. Nabi of Schweikart & Co. Nabi feels that the threat of higher interest rates is a moderating influence on stock prices, but he doesn't think the increase in rates will cut off an anticipated big increase in capital spending. And this spending, he says, should bring about a still higher level of corporate earnings. **END**

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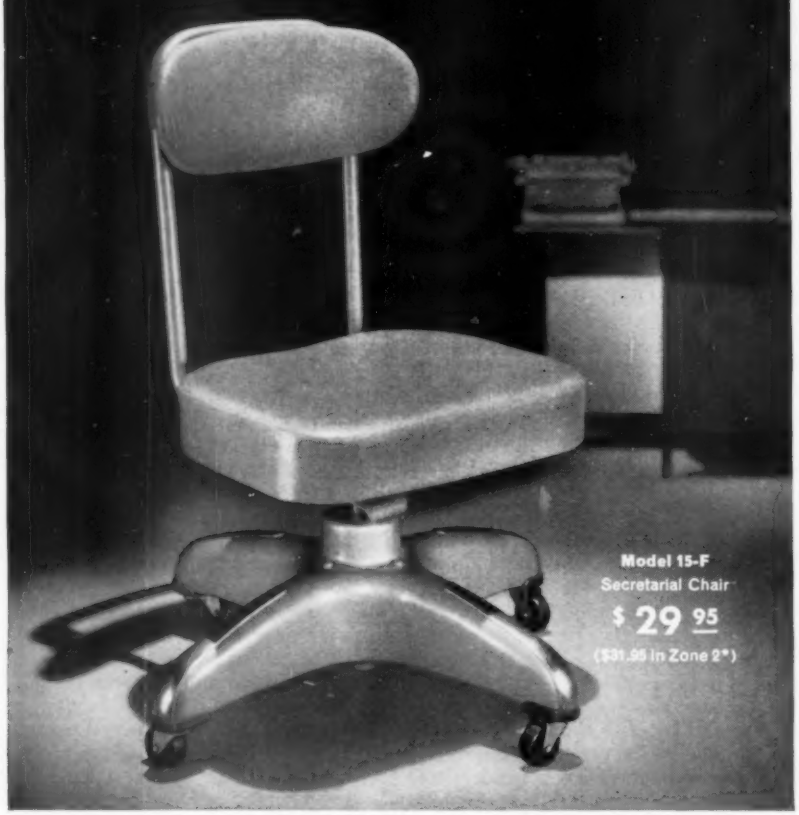

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Tax Crackdown

Treasury warns investors to be more careful about reporting income from dividends and interest.

The Treasury this week threw a scare into investors and savers: It promised to tighten enforcement of the tax laws on dividends and interest, and threatened to seek even tighter regulations.

Treasury Under Secy. Fred A. Scribner, Jr., revealed that an examination of income tax returns showed that taxpayers had failed to report almost $4.5-billion of dividends and interest they received last year. He warned corporations and banks to whip their nonreporting stockholders and depositors into line.

The alternative, Scribner suggested in a speech before a savings bank convention in Portsmouth, N. H., is a law requiring that taxes on such payments be withheld at the source. As yet, said Scribner, "I am not persuaded" that a withholding law is needed. But he said full collection of all taxes due is one step to "fiscal soundness."

• **Earlier Bill**—A number of financial men believe that such a bill may be in the hopper at the next session of Congress. The House passed a withholding bill for dividends, interest, and royalties in 1950 and 1951, but the Senate killed the bill each year.

Scribner said that bondholders and savers, rather than stockholders, were the worst offenders. He said that Treasury's study of the tax returns filed for 1956 indicated a dividend gap of about $1.46-billion or 14% of what should have been filed.

Some authorities figure the Treasury would get some $500-million or more out of withholding on dividends at the source, but it would get considerably more than that if it could collect from all those receiving interest from corporate bonds, savings accounts, and insurance companies. Scribner also expressed alarm at a "high degree" of under-reporting on series E savings bonds interest. He said: "It's estimated that in 1956 less than one half of interest received by individuals was reported by them on their income tax returns." The gap, in this case, he said, was closer to $3-billion.

• **Suggestions**—Scribner outlined a number of suggestions for the savings bankers to follow to correct underreporting. The most effective step, he said, would be to have the banks send a notice to each depositor at the end of the year telling him how much interest had been paid or credited to his account. **END**

Burlington weaves a philosophy of progress

Lift for learning. "Higher education" has become a near-essential for an individual's success. But its cost is also higher . . . too often, beyond reach.

Hundreds of young men and women have hurdled this barrier because Burlington furnished the scholarships. Many are sons and daughters of Burlington plant employees. Burlington has an aid-to-education plan which educators rank industry's most progressive. The plan includes scholarships, fellowships, loans, matched employee-alumni gifts and institutional grants. Since 1949, in addition to scholarships, two million dollars has been given to 186 colleges and universities.

This is but one element in the human side of a corporation which gained world textile leadership in only 35 years. Dedication to community interests, model employee relations —these are other elements. Burlington weaves a philosophy of progress . . . as a good citizen.

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"Woven into the Life of America"

. . . the world's largest, most diversified manufacturer of textiles, with 56,000 employees in 118 plants located in 88 U.S. communities and 4 foreign countries. Executive Offices: Greensboro, N.C.

The 5-foot bubble . . .

Weird things can happen when pilot plant data are scaled up to a full-sized petroleum processing unit. Well-nigh unmeasurable and apparently harmless effects in the pilot plant can attain major proportions in full-scale production.

A harmless 2-inch vapor bubble in a pilot plant, for example, may correspond to a 5-foot bubble in the commercial unit. Such things must be prevented!

Applying over four decades of "scaling up know-how," Universal engineers design plants that achieve the same results with tens of thousands of barrels of feed stock as those developed in pilot plant studies involving less than a barrel.

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In the Markets

• • •

Shares on Stock Exchange Strengthen, But Market Still Lacks Full Vigor

The stock market this week managed to interrupt its month-long decline with a spirited price rise, but few Wall Street observers saw it as the omen of a new bullish phase. Most analysts think stock prices are unlikely to reach their old highs until the uncertainties brought on by the steel strike and Khrushchev's visit have evaporated.

In the last year, every time the market declined, buyers were lured into the market. Today, while money is available for purchases, buyers are holding off; this has brought about further price concessions. This week, for the first time, buyers came in, but there is no certainty that they will continue their purchasing.

It is doubtful, though, that the market will continue to decline; **the economic outlook and the prospect for profits appear too hopeful for such a development.** But it is possible that the market will take some time to gather new steam and enthusiasm. The decline looks like a typical intermediate correction rather than an end to a bull market. But this suggests that the road uphill will be harder in the future than it was earlier.

• • •

Steel Strike and Softness in Stocks Give Government Bonds an Upward Push

The government bond market rallied this week, but few money men thought it would last. Some said the rise was merely technical, a reaction to the sharp drop in prices—and rise in yields—that has taken place over the last month. **The continuation of the steel strike and the weakness of the stock market both helped to bring about a better tone.**

But almost all bond men think lower prices—and higher yields—are in prospect.

There's bound to be renewed pressure in the short-term market. Once the steel strike ends, demands for credit are expected to rise. And the Treasury has a series of financing operations coming up, which should mean even higher prices for other borrowers.

• • •

Syndicate Buys Las Vegas Resort, Offers Shares to Investing Public

Latest in the spate of real estate offerings to private investors is an unusual $2.87-million syndicate purchase of Wilbur Clark's Desert Inn in Las Vegas. A group formed by Lawrence A. Wien, big New York syndicator, has bought the resort, and now is offering shares in $25,000 units.

The deal's chief feature is that for the first three years—if things go as planned—investors will receive distributions equal to 1% of their investment. **For the next 17 years, the promised return will be 20%. Thereafter, distributions will be 25%.** Most real estate syndicates have been offering yields ranging between 8% and 14%.

This scheme for projected earnings is made possible through a sale-leaseback deal. The Wien group bought the resort for $9.87-million, with a leaseback to Clark at an annual rent of $1.1-million for the first three years, $1.04-million thereafter. The price includes $2.87-million cash, a $2-million first mortgage, and a $5-million second mortgage to be held by Clark and associates.

• • •

London Stops Trading in 15 Stocks As a Financial Empire Totters

A financial scandal expected to have wide political repercussions (page 143) erupted in London this week. The London Stock Exchange Council suspended trading in shares of 15 companies controlled by H. Jasper & Co. —but not until the quoted market value of the shares had plummeted about $20-million.

Behind the companies are two former German immigrants, Harry Jasper and Friedrich Grunwald, **who have built up a financial empire by taking over one company after another.** They have been financed, at least in part, by loans from a number of building societies—a British counterpart of U.S. savings and loan associations.

All went well until this summer, when the two bid for Ely Brewery Co., Ltd., and Lintang Investments, Ltd., both much bigger than anything they had tried to acquire before. Their bids ran high, reportedly over $25-million.

After substantial sums had been paid to the former owners of these companies, the money ran out—and so did Grunwald. He disappeared from a Tel Aviv hotel without leaving a forwarding address. If the Jasper group falls behind in its interest payments to the building societies to any extent, there's at least a possibility that the savings of many small individuals may suffer. So far, the relationships between Jasper and the building societies have not been made entirely clear.

• • •

The Markets Briefs

In spite of an over-all improvement in Brazil's foreign exchange picture (BW—Sep.12'59,p132), **the cruzeiro hit a new low this week**—175 to the U.S. dollar. Foreign exchange men say the decline is not likely to go much below the present level; they point out that Brazilian government officials will be in Washington for the World Bank meetings next week, and most observers think negotiations that could lead to a U.S. loan to stabilize the currency will be resumed.

The spread of dual licensing—which allows the same salesman to sell **both life insurance policies and mutual fund shares**—came under attack this week from a leading mutual fund spokesman, Edward B. Burr, executive vice-president of One William Street Fund. Burr said: "We both—insurance companies and mutual funds—have too big a job to do, and each of us has only scratched the surface."

Who "suits" the un-ux-o'ri-ous?*

by Michael Daroff

Michael Daroff
President,
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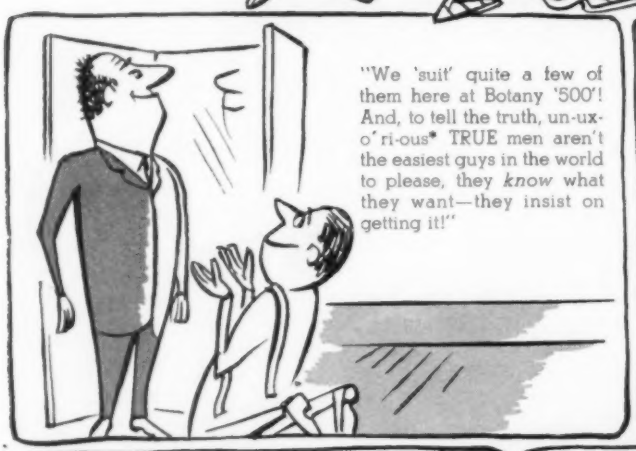
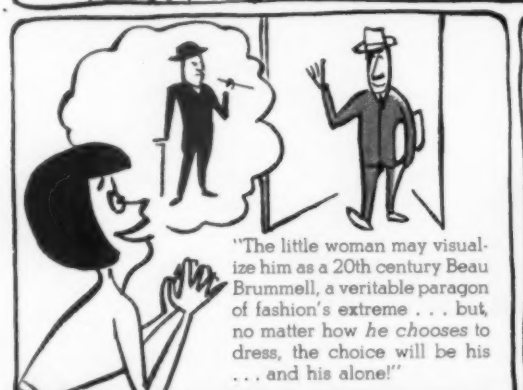


"We 'suit' quite a few of them here at Botany '500'! And, to tell the truth, un-ux-o'ri-ous* TRUE men aren't the easiest guys in the world to please, they *know* what they want—they insist on getting it!"

"Selecting a suit is *so* important to a man, businesswise and socially too, that you can be sure he's going to have the last word . . . the 'buy-word'! And that 'buy-word' from TRUE's 2,300,000 un-ux-o'ri-ous*, adds up to better than a *half-billion bucks* in men's apparel sales annually."



"The little woman may visualize him as a 20th century Beau Brummell, a veritable paragon of fashion's extreme . . . but, no matter how *he* chooses to dress, the choice will be his . . . and his alone!"

"Botany '500' is a TRUE 'regular'. Since over 90% of TRUE's circulation is paid for at the full newsstand, full subscription price, we can be certain that TRUE is bought to be read thoroughly . . . that our ads are seen, noted, read . . . under the *most* distracting circumstances."

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Fight Shapes Up Over Rail Jobs

Carriers seek changes in traditional work patterns, unions demand big pay boosts as contract talks get under way.

The railroad engineer and the railroad fireman (picture) were once the "aristocrats of labor." Their pay, working conditions, and job security were the envy of most other workers; their unions were among the strongest in the country.

Today, their unions are hard-put to defend the job of the fireman aboard freight or yard diesels, which railroad management wants to abolish. And, the mileage system of payment that placed operating railroaders high among America's top wage earners is under vigorous attack.

• **Negotiations Open**—Negotiations that may change railroading work and pay patterns of four decades standing started, officially, last week. The five operating unions—Brotherhood of Locomotive Engineers, Order of Railroad Conductors & Brakemen, Switchmen's Union of North America, Brotherhood of Locomotive Firemen & Enginemen, and Brotherhood of Railroad Trainmen—presented their demands in Chicago with traditional solemnity to a Carriers Conference Committee, representing the Eastern, Western, and Southern carriers.

The 11 leading non-operating unions begin contract talks sometime in October. Both sets of negotiations then will run concurrently down to a Nov. 1 deadline, when a three-year wage and work rule moratorium expires for both groups.

Oddly enough, the central issue in this year's rail bargaining—work rule changes—can't be put on the table until after Nov. 1. Under the terms of the moratorium—signed in 1956 following a rail strike threat—work rule changes cannot be proposed until after Nov. 1, 1959. New demands for a general wage increase can be made before Nov. 1, but cannot become effective prior to that date.

• **Union Demands**—Formally, then, here's what the unions have placed on the table for consideration by the carriers:

The operating unions. The firemen's and trainmen's unions are asking for a 14% pay hike, the other three, 12%. All the operating unions, representing 430,000 employees, want the continuation of the cost-of-living escalator clause, using the Sept., 1959, government price index as a base for computing future-cost-of-living allowances. At present, the Nov., 1956, index is used.

The non-operating unions. The major non-operating unions, representing nearly 700,000 railroad machinists, clerks, and other employees, are demanding a flat 25¢-an-hour wage increase. The non-ops are willing to discontinue the cost-of-living escalator. But they insist on an open-end contract.

Under the Railway Labor Act there are no term agreements, contracts continue in effect until changed in the manner provided by law. Either party can call for changes upon a 30-day notice. However, railroad management would like to retain the same long-term protection against new contract demands as provided in the 1956-59 moratorium in any new understanding with both groups of rail unions.

"We don't want to leave ourselves open for 'sudden-death' strikes," a railroad official explains. But the non-ops don't want to be tied down. "We want the freedom the law allows," says a union leader.

• **Industry Reaction**—The railroads have termed the unions' demands as "unrealistic" in an industry afflicted with "subsidized competition" and faced with heavy capital improvement needs. "Since World War II," concedes J. Handly Wright, vice-president of the Assn. of American Railroads, "the industry has been the poorest earner among all large private industrial groups in the United States, managing to make a mere 2¾% on net investment last year."

With this in mind, railroad management countered the unions' wage demands with a stiff proposal: a 15¢-an-hour cut in wages. In addition, management wants the escalator clause dropped.

Implicit in management's hard bargaining posture, many close observers believe, is a possible trade-off—if the unions give in on work rule changes there will be some honey in the pot for them. The weakness lies elsewhere—in what happens in steel bargaining. If the steelworkers win a substantial wage boost, the railroads will be hard-put holding to their stiff-backed posture.

• **Railroad Goals**—Although the railroads cannot formally outline their proposed work rule changes until Nov. 1, what the industry wants is clear enough:

The elimination of extra brakemen and of firemen aboard freight and yard

WHO RIDES in cab is one point of dispute between unions and management. Rail men claim the fireman is not needed.

Take your own company . . . and prove how many extra $1000 of profit you can make!

We're not talking about pennies here. Electric industrial trucks can save you enough to make a big difference in your profit. And right now Exide has a plan which can show you in fairly precise dollars just how much extra profit you can earn...this year and the years ahead.

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WORLD'S LEADING MAKER OF INDUSTRIAL BATTERIES

". . . featherbedding issue a 'strawman,' say unions. But it costs $500-million annually, retorts management . . ."

(STORY on page 157)

diesel locomotives, especially in those states which have so-called "full crew" laws. The "normal" crew complement aboard a freight train is five men—an engineer, fireman, conductor, and two brakemen. "The fireman fires no fires, and the brakeman brakes no brakes," notes an industry spokesman. The head-end brakeman rides in the cab to operate the brakes, which makes the rear-end brakeman an "extra," according to the industry.

Railroad management estimates that the excess crew laws require 5,000 unnecessary crewmen, mostly brakemen, and outmoded operating rules require 5,000 more. "All firemen," an industry spokesman claims laconically, "are unnecessary." There are some 19,197 yard firemen; 6,515 on local and way freight; and 11,577 on through freight trains. If they were all cut—37,289 in all—this would represent substantial savings to the railroads, so management says.

Revision of the mileage-day pay standard. "A 40-year-old anachronism," say the railroads. This provides that when locomotive and freight train crewmen cover 100 miles, they must get a basic day's pay. Passenger trainmen must put in 150 miles. The industry says this leads to anomalies such as these: The roundtrip running time of the fast passenger trains on the 452-mile roundtrip New York-and-Washington run is less than eight hours. Engineers and firemen receive 4½ basic days' pay for their running time on that round trip, which is less than a standard eight-hour working day.

Revision of claim-to-work rules that ban road crews from working in yards and bar train crews from crossing district and seniority boundaries. Train crews must be changed at each division point, a rule that causes the railroads to use eight different engine crews on the 16½-hour run between Chicago and Denver at a cost of 10¼ basic days' wages for each crew position. When a yard crewman is asked to work outside the limits of the yard, the railroad is subject to a penalty—frequently a day's pay.

These practices, the industry estimates, cost the railroads some $500-million annually. "Just imagine," says Daniel P. Loomis, president of AAR, "what half a million extra dollars a year could mean if plowed into repair work. The backlog of back-order cars would evaporate and vast numbers of laid-off men put back on the payroll. Or think of what such a volume of added investment in modernization could do to railroading—and what it could mean to our customers, our suppliers, and to the national economy."

• **Dispute Over Featherbedding**—The industry carried its fight against featherbedding to the White House last month, requesting that Pres. Eisenhower appoint a commission to study the effects of "outmoded" rail working rules and to make recommendations for changes. Management was counting on the weight of precedent. A similar commission in Canada (BW—May17'58, p141) last year found diesel firemen to be unnecessary on Canadian railroads. The outcome, after a three-day strike, was an agreement for gradual reduction of firemen's jobs.

The unions, however, rebuffed a management suggestion that they join in the fight against featherbedding. They commended the President for his "wisely chosen general policy of nongovernment intervention into labor disputes." The President declared he would not appoint such a commission "at this time." The chiefs of the operating unions charged that such a commission would "be merely a vehicle for more carrier propaganda, designed to adversely influence negotiations."

The railroad unions charge that management is doing nothing but creating a "strawman" by raising the featherbed issue.

"The rules," says J. A. Paddock, president of the Order of Railway Conductors & Brakemen, "must be settled at the bargaining table. If they want a study, let's go the whole route. But you know darn well they wouldn't want management practices questioned."

H. E. Gilbert, president of the Brotherhood of Locomotive Firemen & Enginemen, angrily rebuts management with: "They're handling more freight ton-wise than 20 years ago. They made in excess of $600-million last year and yelled to the heavens. Twenty years ago, the net was only $112-million." Gilbert also says that there's "absolutely no foundation" to the charge that the fireman does no work. "He's more of a technician, today, and he's patrolling a diesel that's sometimes 400 ft. or longer." In addition, say the rail union chiefs, the fireman contributes to safety and also serves as an assistant engineer.

• **Mileage Day Pay**—The extra pay drawn as a result of the mileage-day standard, say rail unionists, is an incentive for "hauling longer trains twice as fast." Actually, says Paddock, "less than 2% of the over-the-road employees are under the so-called incentive rate of pay. Because of the high speeds of today's trains, virtually all local crews have been eliminated." And, remember, he adds, "roads service workers get no expenses away from home, no night differential, no time-and-a-half, no holiday, and there's no consideration for the time spent waiting at the terminal for the train, nor for being stranded after they've arrived at their destination."

Some union leaders concede that the mileage method of payment is obsolete. Indeed, Eli Oliver, a rail union consultant contends that "time rates have lagged far behind the rest of American industry, and that the 'basic day's pay,' so heavily featured in railway corporation propaganda, has for years been less than a fair eight hours' compensation." And, another labor spokesman adds, "if the pay rules are so obsolete, why wait so long to change them?"

Although, it seems as though railway management and labor are riding toward a head-on collision on Nov. 1, there are signals pointing to ways of averting a strike.

• **Basis for Bargaining**—Both sides have indicated some give—management, a willingness to pay for significant rule changes, and labor, a willingness to accept the right bargain. "The railroads want to change the rules without regard to the thoughts of the employees," says Guy W. Brown, Grand Chief Engineer of the Brotherhood of Locomotive Engineers. "If they expect the employees to go along, they've got to come up with some incentives, some benefits. That will cost the railroads money, plenty of money, but it will benefit them in the long run."

So, there's some basis for bargaining. And, the Railway Labor Act slows the parties down, enough to put strike possibilities off for 90 days after Nov. 1. This may be enough to enable the rail negotiators to work out an agreement.

• **Complication**—There's no guarantee against strike, however. The unions might figure that November is a good month to strike. The railroads, which were hard hit by the steel strike, will be in full swing again. Managements of the hardest hit railroads, such as the Pennsylvania, will be vulnerable and won't want to take a strike.

The industry has adopted a strike insurance plan (BW—Jul.18'59,p99) designed to head off the possibility that the unions might play one railroad off against another. It provides insurance against losses actually incurred, such as average daily "fixed expenses," including property taxes, interest charges on debts, pension fund payments, and other costs of maintaining the railroad in a standby position during a strike. The indemnity, however, does not cover the loss of profits. END

In Labor

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Cost of Living: What's Happening to It

	Total Cost of Living	1947-49 = 100 Food	Clothing	Housing	
				Total	Rent Only
August, 1951	110.9	112.4	106.4	112.6	113.6
August, 1952	114.3	116.6	105.1	114.6	118.2
August, 1953	115.0	114.1	104.3	118.0	125.1
August, 1954	115.0	113.9	103.7	119.2	128.6
August, 1955	114.5	111.2	103.4	120.0	130.5
August, 1956	116.8	113.1	105.5	122.2	133.2
August, 1957	121.0	117.9	106.6	125.7	135.4
August, 1958	123.7	120.7	106.6	127.9	138.1
September	123.7	120.3	107.1	127.9	138.2
October	123.7	119.7	107.3	127.9	138.3
November	123.9	119.4	107.7	128.0	138.4
December	123.7	118.7	107.5	128.2	138.7
January, 1959	123.8	119.0	106.7	128.2	138.8
February	123.7	118.2	106.7	128.5	139.0
March	123.7	117.1	107.0	128.7	139.1
April	123.9	117.6	107.0	128.7	139.3
May	124.0	117.7	107.3	128.8	139.3
June	124.5	118.9	107.3	128.9	139.5
July	124.9	119.4	107.5	129.0	139.6
August, 1959	124.8	118.3	108.0	129.3	139

Data: Dept. of Labor, Bureau of Labor Statistics. BUSINESS WEEK

Cost-of-Living Index Drops Slightly As Food Prices Take Seasonal Dip

Prices of consumer goods and services declined 0.1% between July and August to 124.8% of average 1947-49 prices, according to the Labor Dept.'s Bureau of Labor Statistics.

A drop of 0.9% in food prices was responsible for the decrease, as prices of all other items averaged 0.2% higher; non-food commodities were up 0.2% and services 0.3%.

Since food prices normally rise in the winter, bargaining pressures from the unions are not expected to ease off despite the drop in the index. This will be especially true if non-food and service items continue to rise in the months ahead.

• • •

AFL-CIO Proposes Outside Arbitration To Settle Jurisdictional Disputes

The AFL-CIO convention in San Francisco this week (page 34) took an important step toward avoiding future dissatisfaction within the federation. Delegates were asked to approve a committee recommendation of an arbitration board of outsiders to "hear and determine [jurisdictional] disputes . . . with power of final and binding decision."

The proposal of compulsory arbitration received somewhat surprising support from unions traditionally jealous of their autonomy. The plan is to be worked out over the next year. This arrangement also enables the federation to call a 1960 convention without seeming to make it an openly political assembly.

The convention also voted to give its executive council the power to take the International Longshoremen's Assn., back into the federation—subject to continued supervision. (In New York, ILA members this week voted their approval of the reaffiliation proposal. But the vote pointed up a rift within the ILA that may mean trouble when the ILA contract with employers expires Sept. 30.)

• • •

New York Union Leaders Study Plan For Labor's Own Hospitals, Insurance

Unions have done considerable grumbling but little else about the rising cost of medical care. Now New York labor leaders are coming up with a comprehensive answer—one that embraces plans for **a union chain of hospitals, labor's own medical insurance system, and a labor-sponsored medical school.**

The project, however, is still only in the survey stage. Nevertheless if it actually should develop there are 26 major New York City unions already interested according to Central Labor Council Pres. Harry Van Arsdale, Jr. Their pension and welfare reserves total $750-million. At this point, the council has appointed a committee to study:

- The adequacy of facilities for medical care.
- The economic barriers to adequate care for low and middle income families.
- The feasibility of using jointly administered pension and welfare trust funds to finance hospital construction and operation and to operate insurance programs for medical and hospital care.

• • •

Unemployment Pockets Mar Recovery

Persistent high unemployment remains an acute problem in many localities despite general economic well-being. One out of every nine major industrial centers in the nation is afflicted with a more or less permanent scarcity of jobs, reports Labor Secy. James P. Mitchell.

Mitchell points out that **though some 93% of the job losses from the recession have been regained in the country as a whole, only 31% have been made up in the chronic labor surplus areas.**

• • •

Labor Briefs

The Building Service Employees International Union last week announced plans for a **$25-million skyscraper and commercial project for Chicago's Loop.** Union Pres. William L. McFetridge said the development is part of a union plan for "plowing back" union reserve funds to insure the future of downtown areas in major cities.

Harvard University last week established a **Louis Stark Fellowship** in honor of the late chief labor reporter of the New York Times. The fellowship will supplement the Nieman Fellowships for newspapermen and is financed by contributions from employers and labor unions.

What a beautiful way to quiet a conference room!

It's the ceiling, of course. It's made of Gold Bond Striated Acoustiroc . . . a deep-textured mineral wool acoustical tile that adds beauty and dignity to any room.

Interior designers know that the handsome striated surface of the ceiling enhances the decorative scheme of an office . . . eliminates that stark, "half-done" look.

And a Striated Acoustiroc Ceiling is more than just decorative. It also makes everything pleasantly quieter—actually soaks up most of the noise striking it. It's non-combustible, too.

Next time you plan an office modernization or a move to new quarters, talk to your architect about a Gold Bond acoustical ceiling. Tiles come in many patterns – all beautiful. Installation is fast and easy – often can be done overnight or over the week end.

Call a Gold Bond® Acoustical Contractor for our Acoustical Design folder. Or write to National Gypsum Company, Dept. BW99, Buffalo 13, New York.

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Acoustical products...made by National Gypsum Company ...a step ahead of tomorrow

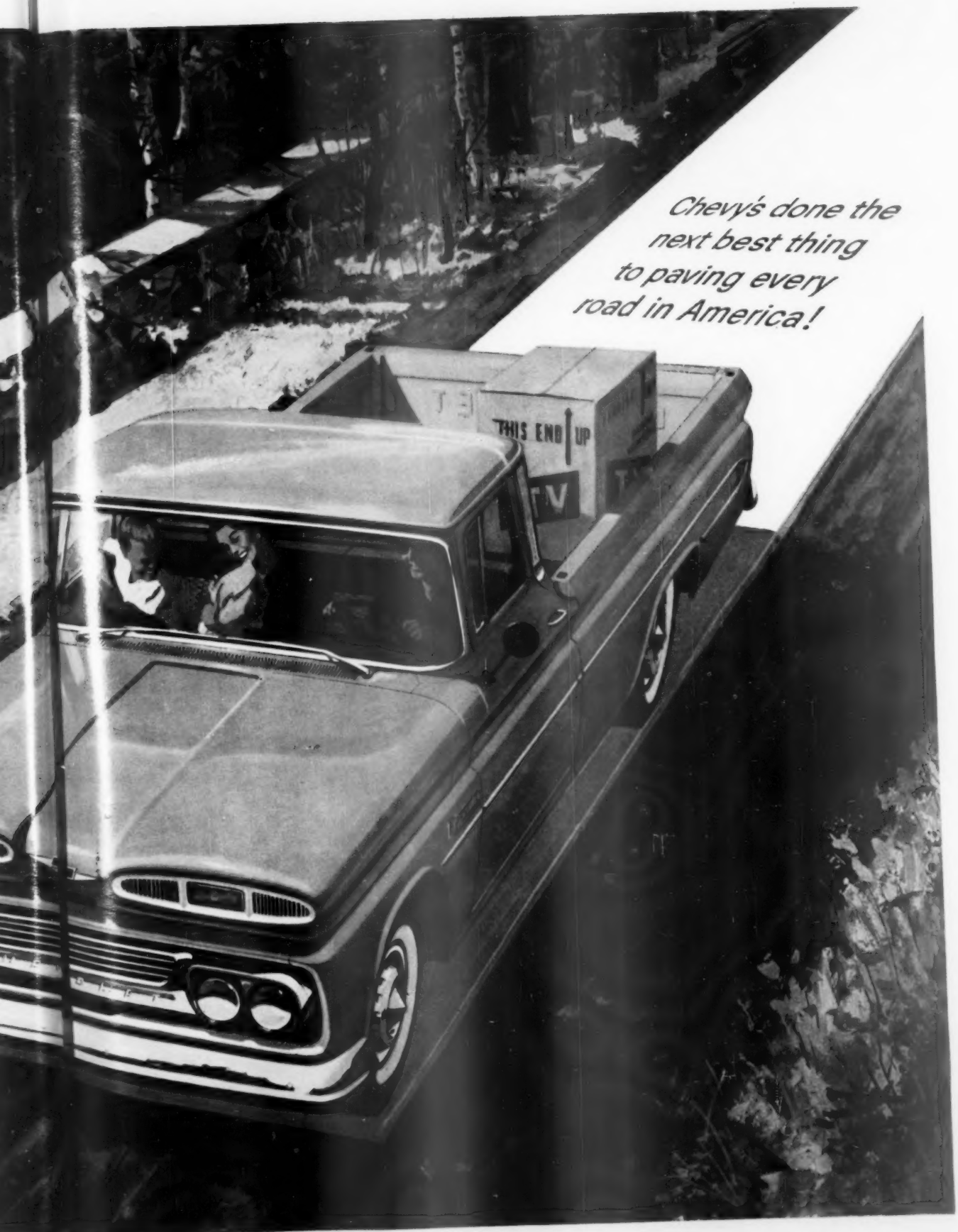
Total Newness! Chevrolet trucks are here for '60

...with revolutionary new Torsion-Spring suspension!

Watch and see, 1960 Chevy trucks are going to make hauling history. They've got a *ride* you have to feel to believe. A ride that completely eliminates I-beam shimmy and wheel fight, makes handling far easier, allows faster safe speeds on or off the road to get more work done in a day's time. The big reason is Chevrolet's all-new suspension: its fully independent *torsion-spring* suspension up front, with wide-based coil springs in light-duty rears and variable-rate leaf springs in heavyweights. It's a feature that lends a big hand to another history-making 1960 advantage — Chevy's *bulldozer durability*. With revolutionary new suspension, with new strength and rigidity in frames, in sheet metal, in roomier-yet-lower cabs—these '60 models are tougher than any Chevy trucks ever made. Tougher than trucks long famous for long life! Your dealer's got the full story, the best one he's ever told. . . . Chevrolet Division of General Motors, Detroit 2, Michigan.

CHEVROLET

Anything less is an old-fashioned truck!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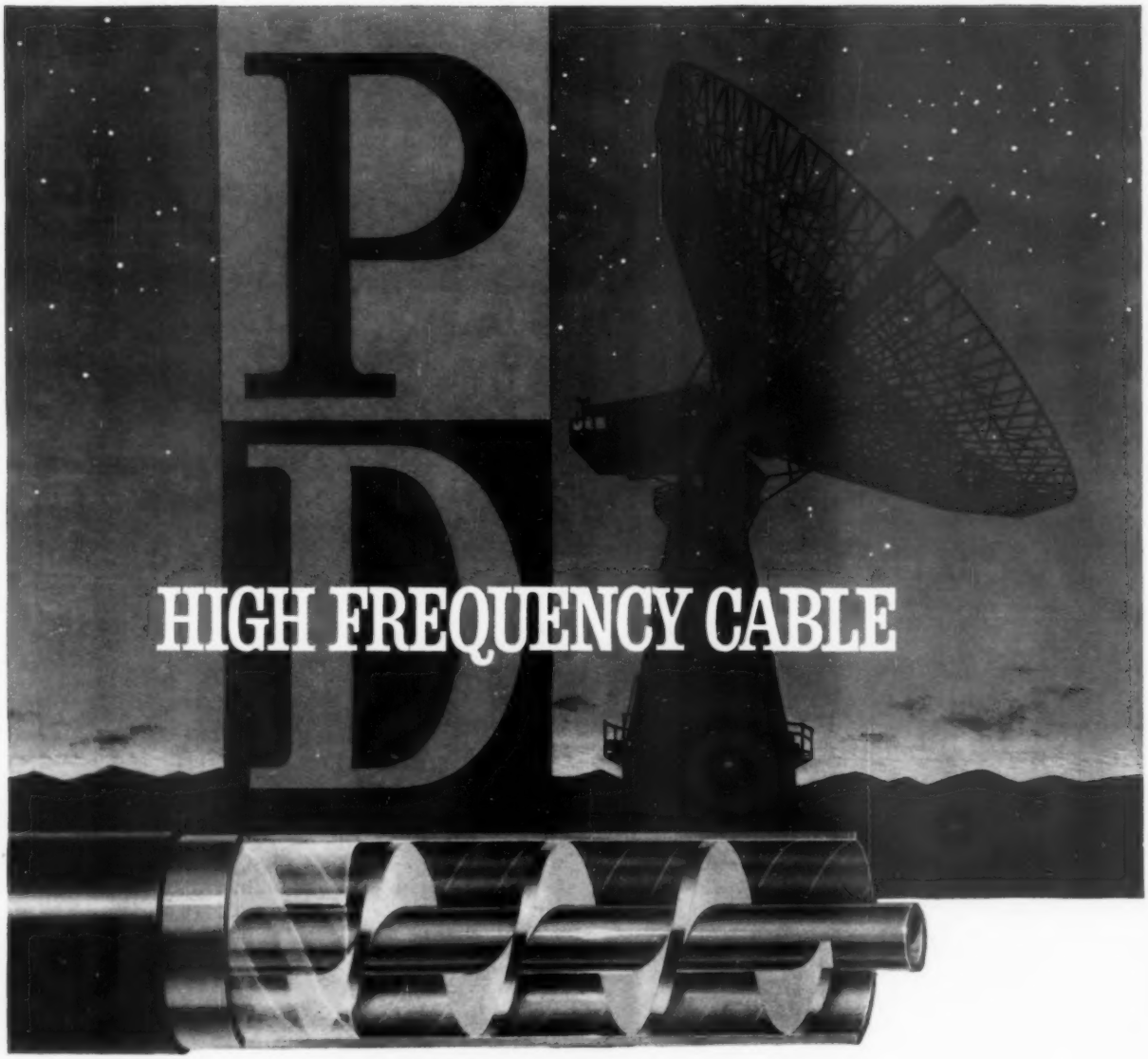

...helps scientists scan the far reaches of space

Giant radio telescopes, sweeping the unseen universe, pick up radio waves originating billions of light years away for scientists to study.
A key part of these delicate, dish-shaped instruments is the high frequency cable linking the antenna to the control building. The outstanding electrical and physical properties of Styroflex® coaxial cable—a Phelps Dodge product—make it highly effective for applications where maximum efficiency, complete reliability and long service life are vitally important.

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PD

FIRST FOR LASTING QUALITY—FROM MINE TO MARKET

PERSONAL BUSINESS

BUSINESS WEEK
SEPT. 26, 1959

Staying "one step ahead" in personal tax planning has its rewards. To keep you on top of the situation, here's a capsule rundown of recent federal income tax developments (BW—Mar.21'59,p155):

An important and maybe far-reaching shift in IRS policy relates to interest earned on savings. **It is now possible for you to set up a savings account with a savings institution so that you can accumulate interest over the years but not pay income tax until you withdraw your account.**

For example: You deposit a certain amount each month, and agree that all interest is to be added to the account until the principal plus interest equal a given sum; say this will take 15 years. During this time, in addition to regular interest, bonus interest is added which increases in rate every few years. **You can obtain your earned interest at any time but only if you withdraw entirely from the plan.** If you do this, you sacrifice future bonus interest.

Under these circumstances IRS will let you **defer the tax** on the interest until the year you withdraw your account.

Other new tax rulings touch on executive compensation.

• **Stock options.** Such options (usually for the benefit of executives) are "restricted" when the price set on the shares is at least 85% of the stock's market value at the date the option is granted. One advantage to the executive is that he pays only the capital gains tax rate if and when he sells at a profit. **To get this break, he must hold the shares for at least two years following the option date, and for at least six months after purchase.**

The question is: Can he still get the lower tax rate if he enters into a separate "hedge" agreement when he buys the shares? IRS now says he still can have the tax advantage even if he buys a "put" which provides for future sale at market price as of the time he buys. **If the "put" is allowed to lapse, its cost can be treated as a capital loss.**

• **Deferred pay.** Under deferred compensation plans, many company executives, in effect, have part of their pay postponed until after retirement —and thus spread taxable income into leaner years. **A recent tax court case hoists a warning that the "deferred pay" concept may be in danger.** Best bet is to have your tax adviser follow this closely.

• **Gifts. A company voted a "farewell present" to a resigning executive, stressing that the money was a gift (thus nontaxable to him).** However, the board of directors' resolution also noted that the payment was in appreciation of services rendered, and that the executive was waiving pension rights. The "gift" became taxable.

Treatment of deductions also has been changed by new rulings and interpretations. **How to handle business expense accounts, for instance.**

Briefly, here's the picture: **Generally, when you claim expenses not reimbursed by your company, you must report both the items that were reimbursed, and those that weren't.** On last year's returns, employees with unreimbursed expenses were allowed to estimate amounts that had been reimbursed through the use of company credit cards, or through other direct charges to the company.

This year, estimates won't be accepted; you'll need to report (1) all reimbursed items, including credit card and similar charges, and (2) all unreimbursed out-of-pocket expenses (BW—Sep.20'58,p146).

There are at least three other **important changes on deductions:**

• **Medical expenses. The IRS has announced it will follow a liberal court decision and from now on will not disallow an expense for medical purposes merely because the outlay involved a permanent installation in taxpayer's residence.** Here the item allowed was a home elevator.

• **Donations.** Say you donate to a charity a small rental building for which you've taken tax depreciation in past years. **IRS will let you claim a charitable deduction for the full current market value.**

• **Casualty losses. A Tax Court case points up this rule of thumb:** One safe way to back any such deduction is to have an appraiser estimate the over-all value of your property as it was both before the loss and after. Just showing damage isn't enough. If over-all value hasn't decreased, you've suffered no deductible loss (except maybe repairs).

—•—

You'll be seeing faster and more varied plays in collegiate football this fall under the National Collegiate Athletic Assn.'s new rules.

Field goal kickers now have a larger target, with the goal post area width increased by 4 ft. 10 in. to 24 ft. (Area between posts, 23 ft. 4 in.). Also pepping up the game, particularly for smaller colleges, is the provision allowing one player to enter any time the clock is stopped, without penalty (exception: during excess time-outs). **This means a coach now can freely send in a field goal kicker, or other top performer, when needed,** if the ball goes out of bounds, or after a touchdown or incompleted pass, and then remove him. **When there's more than one substitute, the team is charged.**

Other important rule changes:

Penalties. There are two new rules here. **When a distance penalty is called, it will, in effect, not be greater than half the distance to the goal line.** For example, if the ball is on the 8-yd. line and there's a 15-yd. infraction, the ball is put in play on the 4-yd. line. **Under the old rules, the ball would have been placed on the 1-yd. line.**

Also, if the offensive team makes a conversion but is fouled by the defense, it may either decline the point, accept a penalty to the 1½-yd. line and try again; or accept the point, taking the penalty at next kickoff.

Time-outs. Free time-outs have been changed back from four to five in each half (BW—Sep.13'58,p110).

To help you identify football players this fall, you can get a steel and aluminum spotting board with spring-recessed "balls" indicating players. The rotating spools enable you to keep track of the correct lineup at any time. Play-O-Gram, containing enough spools to handle eight teams, comes in a weatherproof carrying case (Merrell Features, 208 N. Wells St., Chicago 6, Ill.; $89.50).

Also available for football fans is a program guide listing this season's college and professional games. Write for free Football Facts 1959, FF Dept., British & Irish Railways, Inc., 530 Fifth Ave., New York 20.

—•—

Manhattan: The 7:30 curtain time for Wednesday Broadway shows has been dropped until further notice (BW—Aug.22'59,p98) . . . And speaking of one of the Big City's top attractions, details of many others are included in a new comprehensive, handy guide to New York by Kate Simon, **New York Places and Pleasures** (Meridian, $1.95, paper; $3.50, cloth).

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NEW PROJECT OF DECENTRALIZED GENERAL ELECTRIC MANAGEMENT PAYS . . .

Big Dividends for Motor Users

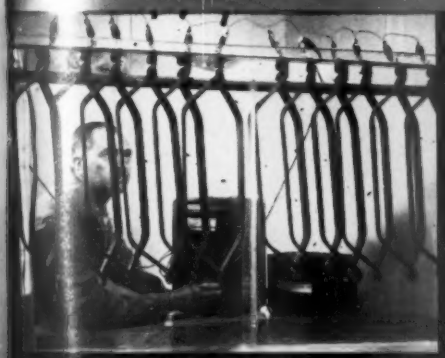
GENERAL MANAGER of G.E.'s Medium AC Motor & Generator Dept. displays new Custom '8000' motor built specifically to meet individual customer needs.

One department, one integrated team of men, one objective: produce a new line of motors to meet the market's demand for custom drives—each built to meet individual requirements of electric utility and industrial companies.

General Electric established a completely new department in 1957 to focus fresh attention on one of its oldest apparatus lines—a-c motors 150 to 6000 hp. The decentralized management team initiated a new program of research, product design and quality control called PROJECT '8000.'

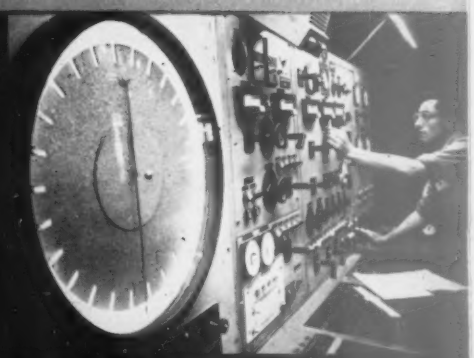
Motor users are now receiving the dividends of this project. General Electric's new Custom '8000'* motors are the most advanced a-c motors available today—with new insulation systems and other custom motor features shown below. For more information on Custom '8000' motors contact your nearby G-E Sales Office, or write Section 885-1, General Electric Co., Schenectady, N. Y.

** Trademark of General Electric Co.*



NEW MOTOR LABORATORY was built to search out new materials and processes to increase motor life, cut costs . . . such as recently developed G-E Polyseal* supported silicone rubber insulations systems.

DESIGN TEAM achieved a major design breakthrough with new Custom '8000' motor . . . flexible enough to permit automated production on motors 150 to 6000 hp yet provide many features to meet individual customer requirements.



QUALITY CONTROL—for increased reliability, less maintenance—consists of over 40 in-process tests; is considered important enough to have quality control engineers report directly to top management.

NEW MANUFACTURING TECHNIQUES use computers and automatic tape-controlled machines to give uniform high quality, and provide faster, on-time delivery by cutting engineering and manufacturing time.

NEW MARKETING APPROACH makes it easy for customers to get custom motors pre-engineered to fit specific applications in the electric utility, cement, pulp and paper, rubber, petroleum, chemical, steel, mining and many other industries.

FAST RENEWAL PARTS SHIPMENT—is another General Electric service designed to help you cut downtime, keep vital equipment operating. Special shipping containers permit fast air freight, if required.

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"I don't know who you are.

I don't know your company.

I don't know your company's product.

I don't know what your company stands for.

I don't know your company's customers.

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Now—what was it you wanted to sell me?"

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SALT MINE opened by Morton at Fairport, Ohio, is nation's deepest (2,000 ft.). Here, workers drill dynamite holes to blast salt loose.

PRODUCTION

Tapping Ohio's Salt Deposits

The country's first major new industrial salt mines in 25 years are being opened by Morton (pictures) and International.

The first major new industrial salt mines in the U. S. in a quarter of a century are nearing completion 30 miles part on the Ohio shore of Lake Erie, in and near Cleveland.

Morton Salt Co. has started production from the nation's deepest salt mine (about 2,000 ft.) at Fairport, Ohio (pictures). It still has some crushing and screening equipment to install below ground, however, before construction will be complete.

International Salt Co. is about halfway down with its two shafts in opening up a mine on Whiskey Island near downtown Cleveland. It expects to get into production by mid-1960.

These two mines point up increasing uses of industrial rock salt, a growing rivalry between Morton and International for the Ohio, Pennsylvania, and New York market, and some differences in the technical methods of mining used by the two firms.

• **Rock Salt**—Rock salt is the same chemical (sodium chloride) as table salt used to season food. It is not, however, refined and purified as is the table product. Rock salt is used just as it is found in nature—crushed and screened to desirable size but without further processing.

It is a basic raw material for production of chlorine, caustic soda, soda ash, and many other chemical compounds. It is used extensively in de-icing highways and in curing hides. In the metals industry, it is used to increase the hardness of products in electric and reverbatory furnaces and as a descaler in hot-rolling of steel billets. It has literally thousands of uses.

More than 5-million tons of rock salt are used each year in the U. S., with the largest quantities used for de-icing roads and in the manufacture of chlorine.

• **The Markets**—Since rock salt is a relatively cheap commodity, transportation cost is a high percentage of final price. Sources near markets are almost necessary. Thus, Morton, which has rock salt mines in Southern states, is moving into the Northern market by opening a mine at Fairport. International, which already operates the world's largest salt mine in New York State and a large mine under the city of Detroit, is countering the Morton move

CRUSHER at bottom of mine does preliminary processing of mined salt. Rough crushed salt is dumped into gravity feed pit, which fills skiffs that carry salt to surface mill.

UNITED Food Co-operates With You To Turn Plant Feeding From Liability To Asset

Skilled professional service—highly specialized—answering directly to the needs of your management; that's what you demand in every department of your business. Demand it, too, in employee food service. It's available from United Food to build company morale, save you man-hours and release your staff from an unprofitable headache.

Here's How! We've put much of our experience in printed form. A request on your letterhead will bring you any of the following: a. "Plan Food Service When You Build"; b. "Getting Good Food Service"; c. "What Food Service Should Cost You".

We will also include the United Food Service "Clinic" form that will enable you to make a really "experienced" analysis of your own food service facilities.

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". . . the Fairport mine will still be operating a century from now . . ."

(STORY on page 170)

by opening still another mine at the Whiskey Island location.

Daniel Peterkin, Jr., president of Morton, says the sudden interest in new mines after a quarter century stems from the increased demands.

"There are five large and expanding outlets for rock salt," he points out. "Chemical industries, metal processing and ceramics, de-icing of highways and sidewalks, hides and leather industry, and other manufacturing areas where salt brine is required provide the major markets."

Highway departments, which often have used a mixture of salt and sand for winter de-icing, are now shifting to use of salt alone since it reduces the clogging of drains. Tests of the use of salt to stabilize road beds are promising and opening an increasing market. Salt brine is being used as an electrolyte in precipitating uranium from its ores.

As these markets expand, Morton and International, the two largest competitors in rock salt, are stepping up their market drives by opening the new facilities so close to each other.

• **Mining Methods**—There are three major ways of obtaining salt. The first is to take salt water, spread it out in large fields where the sun will evaporate the water, and then scoop up the salt. This is done in the area of the great Salt Lake in Utah and on the Pacific Coast. Salt made by this method is pure crystal salt for food.

A second process, also used for making table salt, is to drill a well to a salt bed, pump water down to the salt, and pump the brine solution up. The brine is then processed in vacuum pans where the water boils off and leaves pure crystal salt.

Neither of these methods produces salt in the quantities needed for industrial processes. The large industrial demand is supplied by mining salt in underground mines just as coal or other minerals are dug. The Morton and International mines in Ohio are of this type.

• **Ample Supply**—The U.S. has an abundance of salt. The bed being tapped by both Morton and International is part of a tremendous deposit believed to cover 70,000 square miles—running under Michigan, New York, Pennsylvania, West Virginia, and southern Ontario in Canada, as well as large parts of Ohio.

Morton estimates that 200-million tons lie under its 6,000-acre concession. International estimates that it will be able to remove more than 100-million

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tons from its 5,100-acres concession under Lake Erie.

Morton figures the 200-million tons at Fairport would be enough to cover most of Manhattan Island with salt to the top of the Empire State Building. At expected production rates, beginning with extraction of a million tons a year, the Fairport mine will still be operating a century from now.

• **Annual Production**—Both Morton and International expect to produce 1-million tons of industrial salt a year at their new mines. But their plans for milling and storage facilities differ.

At Fairport, Morton has built a mill more than 10 stories high where rock salt is screened to the various sizes for different end uses. Twelve storage silos, about 35 ft. in diameter and 85 ft. high, have been built to store 15,000 tons of processed salt. Underground at the mine level, Morton will have three crushers and three sizing screens to process the salt before it is carried to the surface mill.

International will put its mill completely underground. All crushing and screening operations will be done at the mine depth. Storage facilities will be provided in the mined out areas. Only loading, bagging, and minor storage capacity will be provided above ground.

• **Pleasant Surroundings**—Unlike the mental picture evoked by the expression "back to the salt mines," a salt mine is a very pleasant place in which to work. Mines have a constant temperature in winter and summer (about 79 deg. at Fairport) and have very low humidity, since moisture is absorbed by the salt. There are no water or fire hazards as in many mines. The room and pillar mining technique leaves spacious caverns with high ceilings.

At Fairport, the average room is nearly 20 ft. high and about 50 ft. wide. Some of the mined chambers in International's Avery Island (Ala.) mine, opened in 1862, are as much as 100 ft. high.

Salt miners practically never get respiratory diseases such as colds; apparently, the salt air prevents such problems. And there is no danger from inhaling salt dust as the body absorbs it easily.

• **Ex-Coal Miners**—More than half of the miners in the new Morton mine have come from the neighboring coal fields where jobs haven't been so plentiful in recent years. International expects to get much of its help from the same source.

A former coal miner, now a foreman at the Morton mine, says, "There is no comparison between salt mining and coal mining. Here I am in clean clothes, comfortably smoking a pipe. None of these conditions would be possible in a coal mine." **END**

Report from a ski manufacturer's shipping room:

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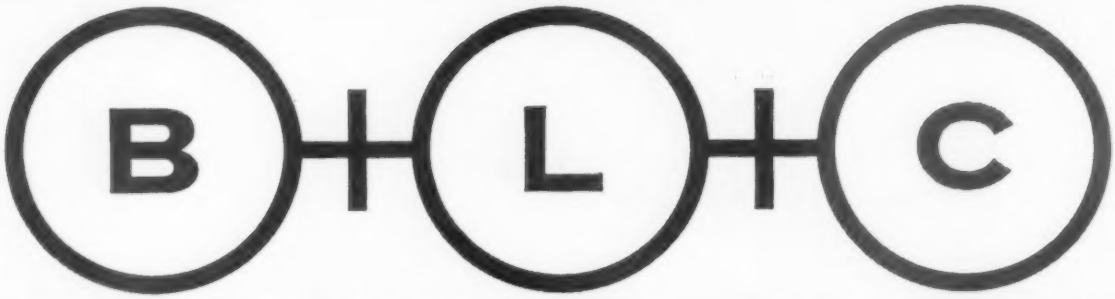

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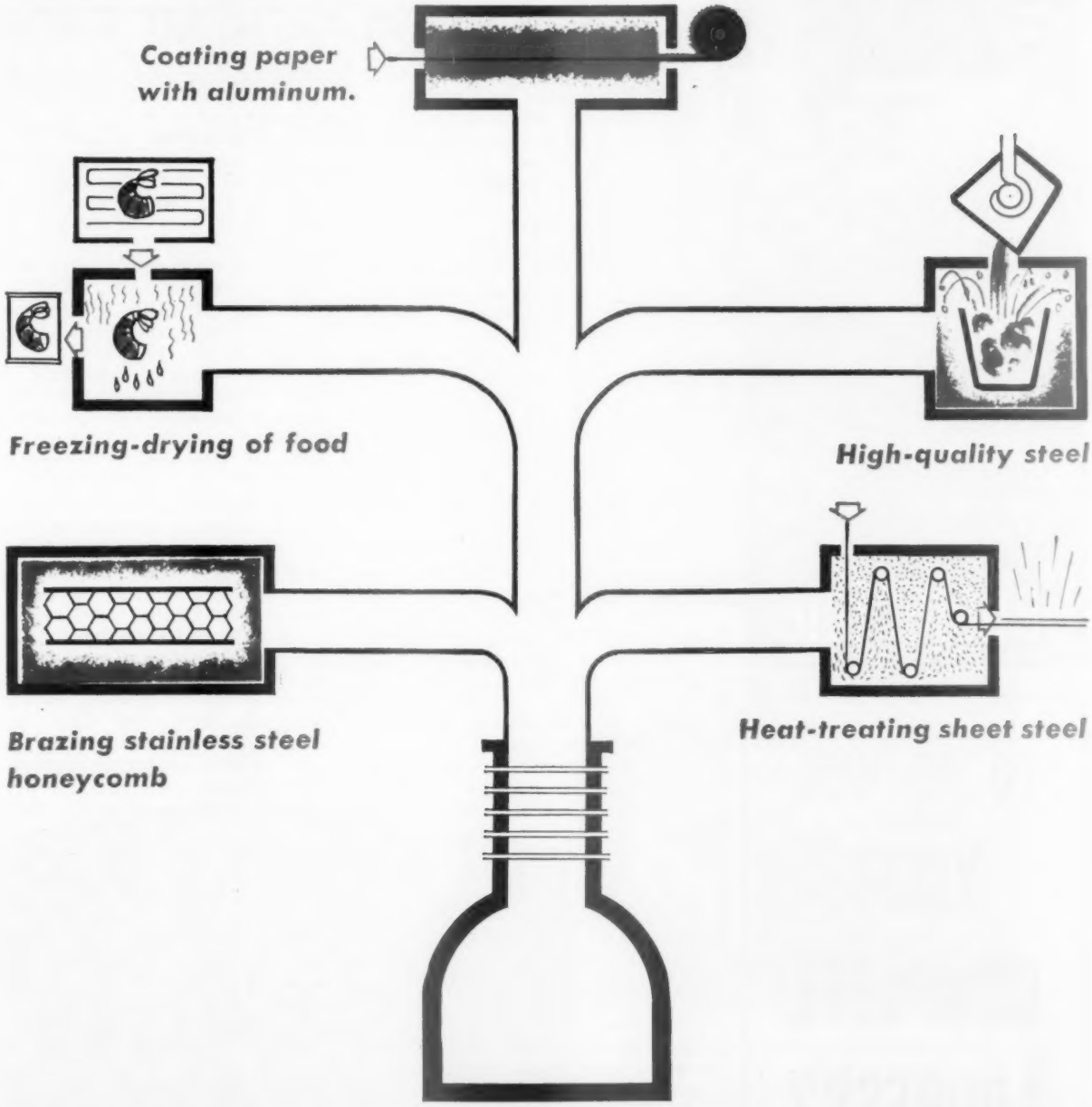

Putting Nothing to Greater Use

High vacuum can be the right atmosphere for brazing honeycomb panels and other tricky industrial jobs.

Vacuum—the nearest thing to nothing that scientists and engineers can achieve—has become a friendly atmosphere in which new industries have flourished. Orange juice is quick-frozen, for example, thanks to vacuum's ability to partially dehydrate foods at low temperatures, and plastic toys are given a thin metallic coating in a vacuum.

Modern technology can produce various degrees of vacuum for such purposes. Absolute vacuum, of course, is the impossible ultimate in which not a single molecule of atmosphere remains. For industrial uses, however, engineers produce near-vacuums of less than one-millionth of atmospheric pressure. They use batteries of pumps, with oil vapor pumps driving out the gas molecules that remain after mechanical pumping.

With improvement of vacuum processes and equipment, industrial uses are increasing (chart). The latest is a process for brazing (soldering at high tem-

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peratures) the stainless steel honeycomb panels that go into 2,000-mph. planes and missiles. With vacuum brazing it appears that the job can be done cheaper and quicker.

• **Something for Nothing**—This new process was developed by F. J. Stokes Corp., Philadelphia builder of pharmaceutical and process machinery. Stokes already makes more than one-third of its annual sales, estimated this year at $15-million, from vacuum equipment and expects to do more in this field, including the uses shown in the chart (page 177).

Grumman Aircraft Engineering Corp. is the first buyer of the special furnace that Stokes' new vacuum brazing process requires, and another aircraft manufacturer is in negotiation for a similar unit. Grumman is paying $250,000 for the furnace, which can handle panels of more than 50 sq. ft., and its accessory equipment.

• **Honeycomb**—Aircraft and missile designers call for extensive use of stainless steel honeycomb panels—stainless because it can take the heat of air friction at 2,000 mph. or more, honeycomb sandwiched between sheets of stainless so as to reduce weight without loss of strength.

The trouble with honeycomb is its expense—about $1,000 per sq. ft. It is also devilish to fabricate. The sandwich—the covering sheets of stainless and the honeycomb filler—must be brazed in special furnaces at 1,700F without exposing it to oxidation by the atmosphere during the process.

The standard way to protect the panel during the brazing is to enclose it in an envelope of steel sheets that are welded all around the edges—an operation that may take four hours. All the air inside the envelope is then replaced by argon, a chemically inert gas, before the whole package is slid into a brazing furnace. Some fabricators spend as much as $1,000 a month for argon.

• **The Stokes Process**—F. J. Stokes' brazing process uses a vacuum instead of a protective gas atmosphere. It also permits re-use of the brazing envelope.

Stokes assembles the envelope with a watercooled form around the edges that permits use of rubber gaskets instead of welding to make the vacuum seal.

Inside the Stokes vacuum furnace, the envelope is heated electrically. Two degrees of vacuum are pulled, one in the vacuum chamber itself and a slightly higher vacuum inside the envelope. The difference in pressure helps to squeeze the envelope and its contents together during the brazing.

• **Practical Research**—In its research on vacuums, as in its other fields of interest, Stokes never forgets that it's primarily a machinery builder.

"Our approach," says Pres. Francis Dougherty, Jr., "is to let the basic research people develop the process. Then we develop the machinery that will make it go, commercially."

Its chief competitors in the vacuum art, National Research Corp. and Consolidated Electrodynamics Corp., are much more inclined toward research on a broad front. Stokes prefers to watch for a new idea and then use its engineering skill, production knowhow, and sales force to win a place in the competitive market.

That's how Stokes managed to design or build most of the dozen giant vacuum degassing furnaces that the steel mills use to turn out flawless high-strength forging steels for steam turbine rotors and other critical parts. Stokes didn't originate the idea, which dates back to the early 1930s. But when quality of forgings became critically important, Stokes was ready to demonstrate practical equipment that could pull down a vacuum in a huge 250-ton degassing chamber. So it got the business.

• **Newer Uses**—Stokes anticipates a growth of business in other uses:

Ladle degassing. In the dozen or so vacuum degassing furnaces, the huge ingot, weighing as much as 125 tons, is allowed to cool while still in the vacuum chamber; in ladle degassing, a ladleful of molten steel is removed from the chamber after treatment and is poured into the smaller ingots and castings that are in greater commercial demand. Several companies, including Bethlehem Steel and Ohio Steel Foundry Co., are already using ladle degassing with equipment designed or built by Stokes.

Paper metalizing. If a thin coat of aluminum could be deposited on paper, a new kind of foil would be created at about 60% the cost of conventional all-metal foil. But doing it in a continuous process, and without letting the vacuum draw all the moisture out of the paper, is still a tricky problem on which both Stokes and NRC are working.

Continuous heat-treating. Standard practice is to heat-treat sheet steel one roll at a time, with a pickling bath needed to clean off the oxidation scale afterward. Vacuum heat-treating allows no scale to form. Stokes is working on development of roller-type seals to pass a continuous sheet in and out of the heat-treating furnace without impairing the vacuum.

Freeze-drying. Stokes has already sold one customer on the advantages of freeze-drying food, a process already widely used by pharmaceutical producers. Food is frozen, then placed in a vacuum chamber, where the ice sublimes (changes directly from solid to gas), for better flavor, texture, and preservation quality than conventional quick-freezing methods permit. END

TEN 230 KV WAGNER POWER TRANSFORMERS

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The Metropolitan Water District of Southern California serves 7,000,000 people in five California counties. Water from the Colorado River is carried across the state of California through an aqueduct system 654 miles long. Pumping stations along the aqueduct lift the water 1617 feet over mountain barriers—a tremendous job, done by electric power. The power for these pumps is supplied through high voltage power transformers—that must give completely dependable service.

To fill the need for more water, the District recently installed ten Wagner 230,000 volt power transformers at three of the pumping stations along the system. Three of these transformers are rated 5500 kva—seven are rated 15,000 kva. They will help supply enough power to double the capacity of the system. The transformers are oil-immersed, water-cooled, with an alternate provision for forced-oil cooling.

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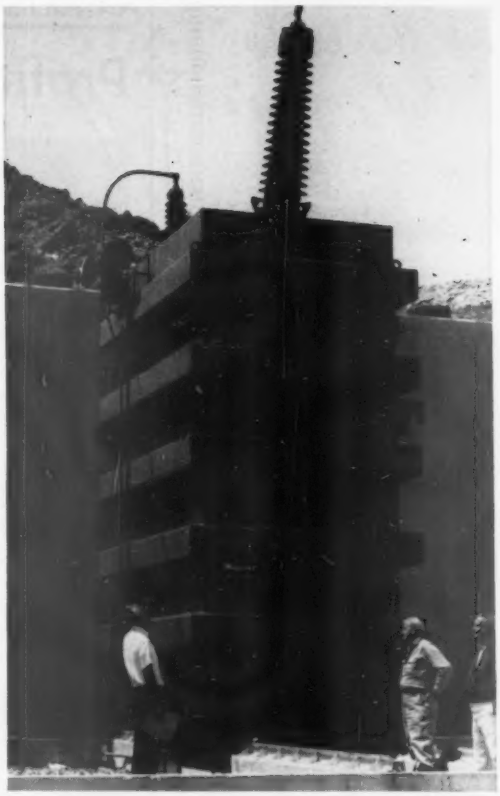
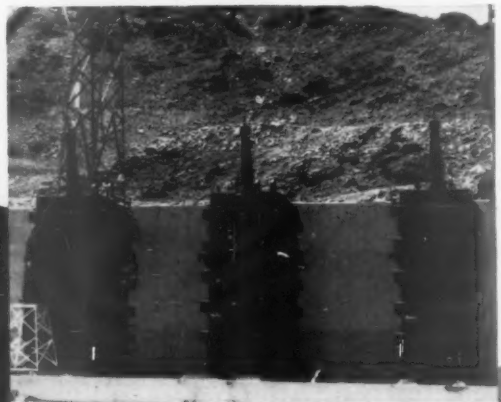


One of the three 230 kv Wagner Power Transformers added to the Eagle Mountain pump lift.



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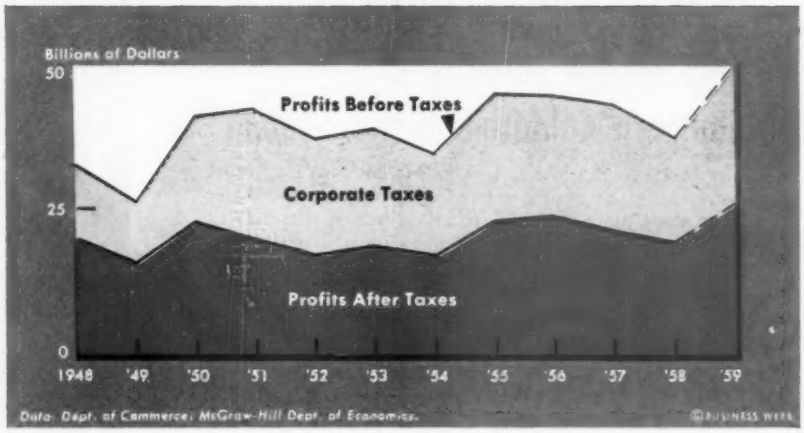
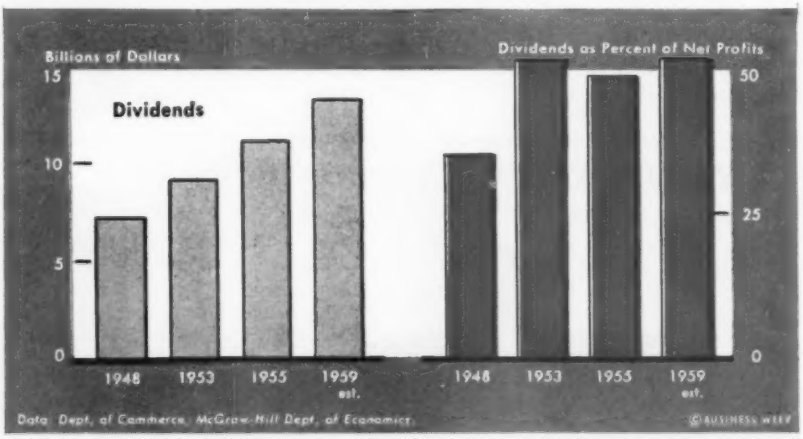
CHARTS OF THE WEEK

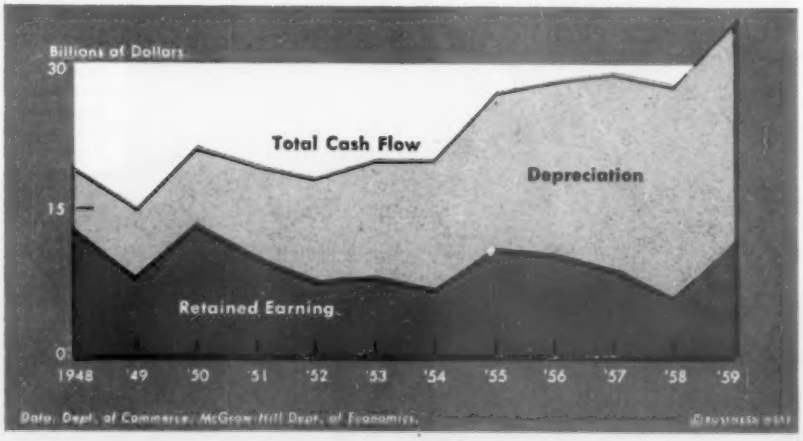
Profits in Perspective



Corporate profits this year will set an all-time record at around $50-billion. About half of this year's rise in profits represents a recovery from the sharp drop in 1958, when they dipped to 37.1-billion.

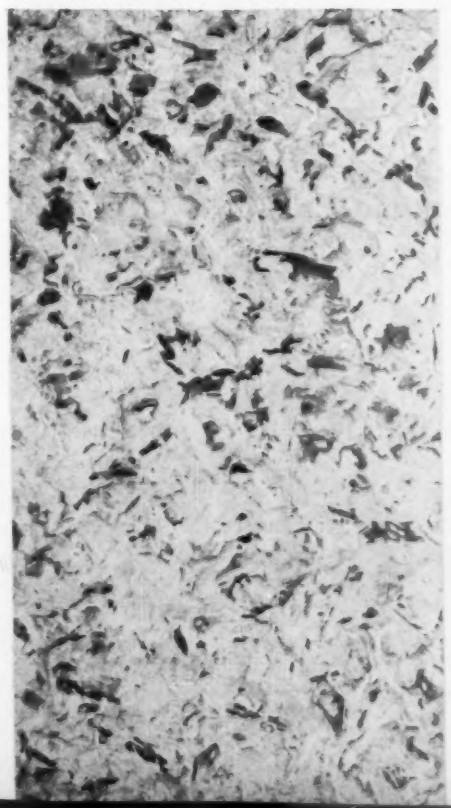


Dividends will be up sharply to an estimated $13.2-billion and will take a larger share (52%) of net profits (after taxes).



But corporations will have record amounts of cash from retained earnings plus rising depreciation to reinvest in replacement and expansion.

BORDEN CHEMICAL DEVELOPS A NEW RESIN FOR PARTICLE BOARD



It's Autoset 31—new, self-curing urea-resin that sets fast and greatly simplifies the making of particle board! Developed by Borden Chemical's Research & Development Laboratory at Bainbridge, N.Y. The point to remember? Bainbridge is just one example. All told, coast to coast, Borden Chemical has seven such labs with the capabilities to solve an infinite variety of resin and polymer problems. Including yours! Write The Borden Chemical Company, 350 Madison Avenue, New York 17, N.Y.

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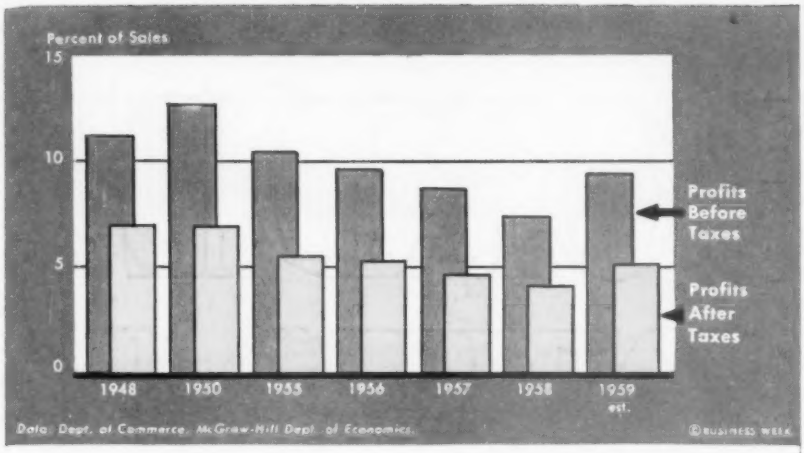
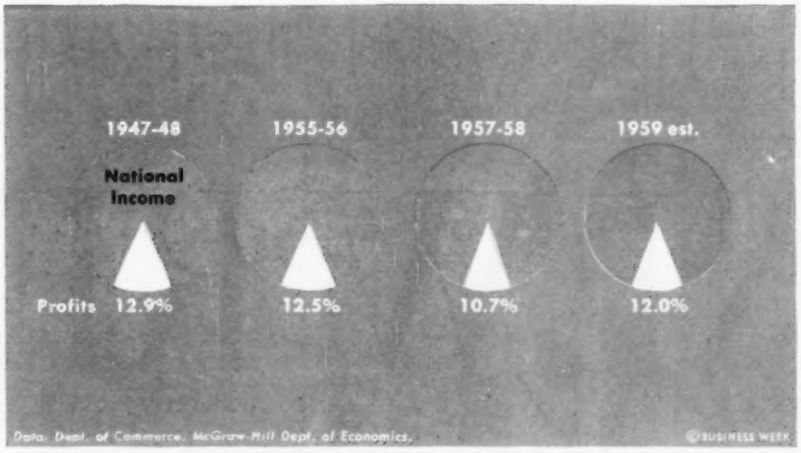
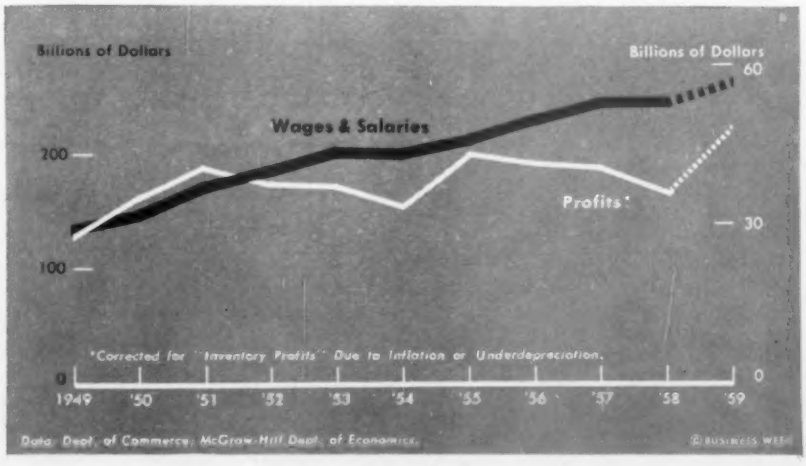


Profit margins (percent of sales before or after taxes) have recovered from their recession dip but are not as high as in some earlier postwar years.



Profits in 1959 will represent about 12% of total national income. This is more than in 1957-58, but less than in earlier postwar years.



Over the past decade, wage and salary income has risen faster than profits. During this time profits have suffered some violent drops as well as increases.

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Not So Funny After All

The financial leaders of the free world are assembling in Washington this weekend for the annual meetings of the World Bank and the International Monetary Fund. Delegates to this year's sessions are in a sober and constructive mood, which suggests that good results will be forthcoming.

A year ago, when the meetings were held in New Delhi, the drain on the U. S. gold stock was a central topic of conversation; and though many foreign bankers were concerned about the problem, some appeared to take a keen delight in rubbing their hands over the plight of the dollar.

Jokes went the rounds that the dollar was "the fifth strongest currency" and that the U. S. was the world's poorest developed nation. The story that had the widest circulation concerned the Zurich banker who allegedly offered to bet Federal Reserve Chmn. William McC. Martin a case of champagne that the dollar would be devalued in terms of gold. Martin reportedly refused the bet, which implied that devaluation was in fact in the cards.

Some of the jibes and jokes were understandable. After a long period in which most of the nations of the free world were short of dollars, last year's reversal not only seemed cause for rejoicing but for some barely disguised efforts to take a kick at the old top dog who had fallen on some evil days.

The drain on the U. S. gold stock has continued, although at a slower pace, during the last 12 months. But that kind of malicious dollar-baiting talk is now heard less and less. Instead, foreign bankers and economists—and the foreign financial press—are now taking a far different view.

French economist Bertrand de Jouvenel, for example, has recently pointed out that the U. S. adverse balance of payments is not the result of "a country in a bad economic position vis-a-vis the rest of the world, but one of a country maintaining burdensome political relationships with foreign countries."

Much the same point has been made by the London Economist, which criticizes "smug talk about the weakness of the dollar." This kind of attitude is a mistake, the Economist warns, and "ignores the massive and unparalleled defense of the American authorities." And the Financial Times of London observes that the main reason for the strength of the sterling and other foreign currencies "has been the far sighted and liberal policy of the U. S.," and adds that the "U. S. authorities have not allowed themselves to be influenced by much of the talk about the 'weakness' of the dollar, which it is in their power to cure at any time at the expense of others."

These comments are welcome, for they recognize that the defense of the dollar is not simply an American problem but an international one. The U. S. could stop the drain on gold and bring about a balance of payments surplus in short order either by arbitrary restrictions on imports or by drastic reduction in our program of economic and military aid to the rest of the free world. But this would strike at our allies and produce a new dollar gap.

The problem is to achieve a balance without giving up the goals that we have worked so hard to reach, to arrange a new distribution of the burdens without precipitating a gold rush and a subsequent liquidity crisis.

With the new and soberer mood spreading among our allies, it is not too much to hope that the sessions in Washington will get to the heart of the problem as the sessions in New Delhi did not. If they can do this, they can make a long start toward exploring ways and means of increasing world trade and strengthening the currencies of the trading nations, including the U. S.

Step Backward?

When Premier Khrushchev appeared before the United Nations to make his proposal for "general and complete" disarmament, he knew that he was speaking to a world that is yearning for an end to the burden and the danger of the arms race. In such circumstances, it is regrettable that the Soviet Premier failed to deal honestly and realistically with the disarmament problem.

To be sure, the U. S. has agreed that the Khrushchev proposal should be debated by the U. N. General Assembly and then be given careful consideration by the ten-nation disarmament committee recently organized by the Big Four. Nevertheless, Washington cannot escape the uneasy feeling that Khrushchev has taken a backward step in presenting such a Utopian scheme to the world.

Everyone has agreed for centuries that complete disarmament is a noble goal. But in setting forth his ends, Khrushchev completely ignored the means of attaining them. Although the Soviet Premier did accept the principle of controls, he gave no indication that he would consider the kind of inspection and control system that would be needed to make his proposal any more than a pipedream.

As if in recognition of this fact, Khrushchev did leave the door open to some limited steps in disarmament—in areas such as a nuclear test ban and the limitation of conventional armaments. But Khrushchev's U. N. proposal, like so many other aspects of his U. S. visit (page 28), has done nothing to reassure Washington about his real intentions. It has raised the suspicion that he is more interested in easy propaganda victories than in real progress toward a limited agreement.

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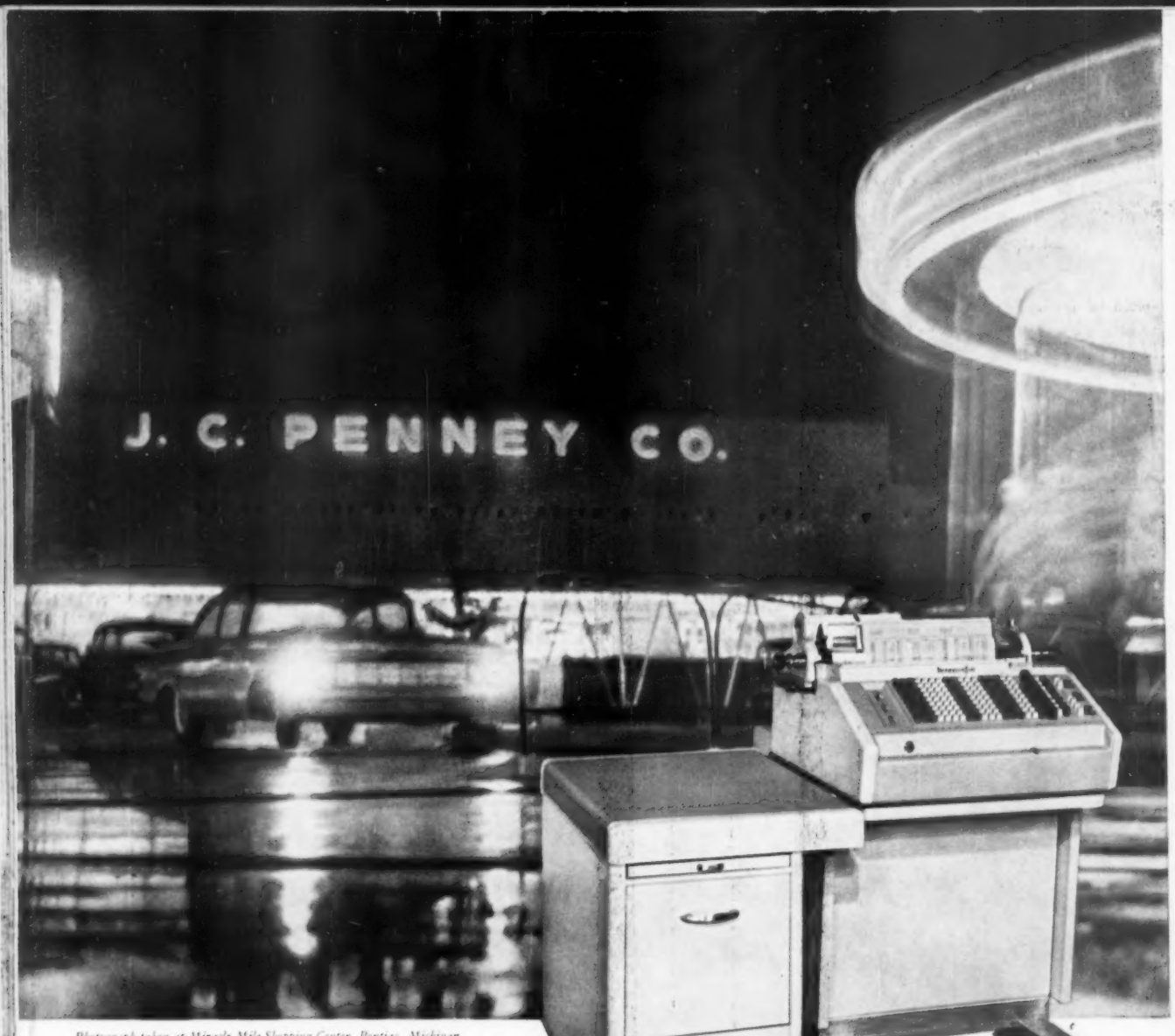

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